

AUSTRALIAN GARDEN HISTORY SOCIETY
NATIONAL ORAL HISTORY COLLECTION
NORTHERN NSW BRANCH



Photo: Lynne Walker

Interviewee:	VICKI, JONATHAN AND MICHAEL TAYLOR
	Interviewer: MARILYN PIDGEON WITH LYNNE WALKER
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0:00

Vicki, Jon, Michael, thank you very much for agreeing to participate in this really very interesting national project, I think it is. [chatter about date etc] It is the 16th May [2018] at Birralee.

All: The Hill.

The Hill at Terrible Vale. And it is 11.25. Anyway, thank you very much for agreeing to participate. I was really keen that New England people would have the opportunity to understand a little better the significance of not just what we have here but the thinking behind what you have done and the huge changes that you have wrought. And to progress quickly, what I hope I might do is to look at your background, Jon, and how you came to this and, Vicki, what you then brought, when you married Jon, to this sympathy of interests that developed during your married life. And then, of course, Michael, your contribution sometime further down the track. So, if we could start with you, Jon. What, what would you say were your ... the signal aspects of your childhood, growing up, that led you to being so involved with amending your landscape using trees?

Jon: Well, I guess as a child I was often in the garden working with my mother or experiencing being roused on for damaging any plants and things like that. But I guess it was happening all around me and then later on, because of the New England dieback, my father had started making an effort to plant some trees ...

Can I just interrupt for a moment ... this was pre the big awareness in the 1970s that your father's awareness of it [New England dieback] wasn't it?

Jon: Yes.

So, when do you think he saw the damage?

Jon: I can remember as quite a young boy, my uncle, who was a scientist and lived in Canberra and Hobart, and he worked a lot on the sirex wasp, which was a major problem in the radiata pines, but he was also interested in a lot of the eucalypt — the little insects and things that were on there — and he came to visit one Christmas and we all hopped in the ... you know, the adults hopped in the station wagon and the younger kids hopped in the back and so we, sort of, didn't really know what was going on but we were kind of listening in the background. And my uncles and my father took a trip out to where the beetles — the Christmas beetles — were defoliating the trees quite badly and they sat there for a while after looking at the trees and the beetles and what have you, and discussed the amount of damage that was being done, and tried to figure out what it all meant in the future. So they were thinking about that then and that would have been probably have been about 1956, or perhaps a little later, could've been as late as 1960 but I was still quite young, and the effects of dieback were just starting to really gather momentum a lot of the ... and the

particular patch of trees that they were looking at that day was a couple of acres of eucalypts, and there wasn't a tree of that left alive after another 10 or 15 years because of the New England dieback. So, I guess there was an awareness then from my father and probably during the middle of '60s he started to plant a few trees in places on the farm. And then about the time I left school in '67 he sort of stepped up his efforts and actually netted in some 1-acre enclosures and planted trees in them. I think he did about six areas and it probably cost him about \$8 a tree to plant them but he thought that, you know, because they were losing so many of the other trees we needed to try and do something to replace them. And then, I guess later on, after a couple of years here, we gradually looked at planting larger areas and planting them along fence lines, and I can't remember the fine detail but I remember, sort of, discussing with my father at one stage how good it would be to have a line of trees along a particular fence line near the creek. And we discussed it a bit and he capitulated to me to allow us to fence in ... it was only a narrow strip, just a single row of trees, but we planted those there and I was quite involved in that. I guess it sort of ... it was sowing the seeds for me of getting involved in a larger scale project.

And were they exotics or natives, those first trees?

Those particular plantings, I don't think there were any natives they put in because all the natives were dying. They were, as I remember it, they were largely Cupressus and the old macrocarpas [*Cupressus macrocarpa*] and some torulosas [*Cupressus torulosa*] and I think we put in a few ... I don't know if it was one of the hawthorns ...

6:09

Vicki: Washington thorn...

Jon: Yeah, it might've been the Washington thorn we put in and there were a few poplars put amongst them, some of the Lombardy poplars, so, yeah, that was the beginning of it and then about ... let me see ... about 1970 I suppose, we started to look at the ... it was a little bit later probably ... the radiata pine.

Vicki: '79 was the first time ...

Jon: '79. We planted a few more smaller areas in the meantime but then in about '79 we looked at planting ... you know, getting hold of some of the radiata pine that were being grown at the Walcha Nursery, and we discovered there were people machine planting those for the plantations. And being very mechanically minded, it interested me straightaway but, you know, combining tree planting with a machine, and it was going to, you know, satisfy two interests. So some little plots that were round about on the farm that had been used for growing a bit of lucerne for the milking cows and that, we planted some of those areas out completely to radiata pine.

By this time, of course ... by this time you were married, and you had another input.

Jon: Yeah, that's right.

And Vicki ... if you could just pause with the tale because from that point on it's really your joint effort, isn't it?

Vicki: Yes, I guess so.

The time of the replanting of the ...Vicki, I know you've had a very interesting family background in garden and tree culture yourself, didn't you. So how did you come to this site? What do you think you brought to it?

Vicki: Well, I have never been or lived anywhere much that hadn't been surrounded by beautiful gardens and vegetation. Thinking earlier today about it, even in Sydney I had relatives down there that we would visit. And my dad's uncle owned the Epping nursery. So, he had a huge area in the middle of Epping. And another uncle, great uncle I used to visit, first thing he did was show me his vegetable garden and talk about how old his rhubarb plants were. I just didn't know anything else. And so, coming here ... I can remember Mum and Dad arriving with a boot load of plants, every time. And, well, they couldn't stay in the laundry tub for ever [laughter]. They had to be planted. So we started our garden but they encouraged us and Jon's parents encouraged us.

You came from a household where trees were immensely important.

Vicki: Yes, it was just unimaginable to be anywhere without them. And not just any trees, there was always discussions about the types and what grew and ... My mum, very early on the piece ... in the piece here, would talk about a particular species of tree, like the oaks, that seemed to do well, so why not explore the family of oaks and collect, one way or another, you know, a wider range of that particular type of tree.

Perhaps we should make the point that Noeline [Miller] had a very particular interest in trees and that in time established her own arboretum and was a member of the Dendrological Society. So there was quite a strong intellectual interest in trees, apart from ...

Vicki: That's true. So, I guess from an early time we learnt to call trees by their botanical names rather than their common name because we knew the pitfalls of sticking to common names. Which meant that it was easy then for us to approach nurseries further afield and to go and visit nurseries or gardens or forests, and get to know the types of trees and their habits to see what would grow here. But we tried anything and everything at the start, including a lot of noxious weeds probably.

Jon: We even planted gorse [laughter]. That was alright until my son saw it. One plant out of about 8 that I planted survived and that was growing a little bit, and as soon as I went away he got the tractor and bloody well dug it out.

Were there other individual groups of trees that were spectacularly unsuccessful?

Jon: Yeah, there were a lot of ... [laughter]

Michael: That's my chapter. [laughter]

You remember to introduce it a little later on, Michael. Well, we'll proceed with the positive comments for a little while. So when ...

Vicki: We found that every year was different so if you planted a wide range of things something would grow and something would die, and you could never tell beforehand which species wouldn't do well. So ...

Jon: Some of them that, you know, were ... some plants that even that were a problem in some areas ... people would say, 'Oh, 'don't plant any of them because, you know, they get out of control and will take over the place,' and that sort of thing. But those same plants planted in another area can be quite a useful tree cover. You know, things like, experimenting with pampas,(Vicki: and cotoneasters) it doesn't seem to seed and spread here. In some areas it is a problem and then, obviously, the gorse battles to survive here. But there was also ... another one we tried ... I can't think of it just at the moment.

I wonder at what time, looking back, you can say that you developed a more systematic approach to ... rather than the hit and miss ...

Vicki: No, it wasn't systematic, it was more experimental all the way, and looking and learning from other people's experience and trying it here. Because we had nobody to follow here. And this area is right on top of the tablelands so we don't have good water, the soils are thin and because it was denuded of trees, the extreme temperatures in winter and summer were getting worse each year. So, nobody could advise us And when we first started there was only the Forestry Commission, and they were only interested in plantation trees. And they only knew about plantation trees.

Where was the nearest Forestry Commission [indistinct overtalking]

Vicki: Walcha. We had some really good people there that were very, very helpful but they had a narrow view. So it was only when we were able to travel to Victoria we thought, 'Ah, look at the [indistinct] trees down here. How do they get these things to grow.' And they had nurseries where you could get these trees. We didn't have the nurseries up here either. People like Gordon Youman and those, if we'd had them, well, it would have been easy.

Easier.

Vicki: We had to grow our own ... propagate all our own trees.

Yes, that's something else we should talk about. From the beginning, you were ... not having special nurseries on the place you were planting [indistinct] sites after a tube ...

Vicki: We planted silver poplars from root stock that we dug up along the side of the road, a patch near Saumarez, at Kentucky Station. We planted the radiata pine that was open rooted then we found nurseries in Victoria that grew trees that you could buy in big numbers cheaply, and they were open rooted so we could get them transported up here cheaply, and in the ground soon after they arrived. And the rest we grew from cuttings. We soon found that we could grow poplars and willows from cuttings.

Jon: There was a very strong emphasis in the whole thing, for me in particular, to ... trying to find ways that we could afford to plant large numbers of trees because we weren't doing it as a funded thing. And so we were constantly looking for varieties that we could get cheaply. For instance, the radiata pine, at that stage, they were 8 cents a seedling and so ... if you bought any sort of tube stock it was two dollars a seedling, full stop. And it's still cheaper than that now with better propagation systems. But, you know, finding ways to ... like planting poplars from cuttings or direct seeding some of the Quercus species with the acorns. And that ... the other thing, after looking at the cheaper thing, was to find things that actually grew here and because there were a lot of trees that we did plant that, initially, that didn't grow, well we just kept broadening our view. And it was kind of exciting, you know, 'Look, we've found something else. That's a really nice tree, let's take some seed of that and see if we can grow some of them.' Or ...

This is a different species or ...

Jon: Yeah, totally different species. Whether it was, you know, fruit tree seedlings we discovered, you know, Granny Smith seedlings that they grow en masse in nurseries for the people to use as root stock to graft onto. And we were able to buy those trees and we just planted them as root stock, and they came up and some of them had Granny Smiths and some of them had some other varieties we'd never seen, but it was all part of, you know, building up the diversity and finding what things we could grow and what we couldn't.

And, of course, as you found the better sources of supply you also had then the problem of numbers to plant.

Jon: Yeah.

So, your interest in mechanics ...

Jon: Yeah.

... was very useful.

Jon: Yeah, well, it was ... I always had an interest in being able to ... I didn't like the idea of having to walk along with a shovel and dig a hole for every one, so

mechanising the planting method, it was obviously ... we ended up planting in rows because we could use a tractor and a ripper and a rotary hoe and things like that to be able to plant the trees in a mechanised fashion. And then later on I spent some time developing machines where you could insert the trees into those prepared plant blinds.

Vicki: Something that we haven't brought up yet is finding the HIKO propagation system. So that totally transformed what we were doing here in that we were able to plant greater numbers of a wider variety of trees and get really good strike rates.

So, explain that system.

Vicki: We'd started trying to grow the oaks and we found, very quickly, that they've got a very strong tap root, like a eucalypt, and when it hits the bottom of the pot it goes around and around and becomes root bound. And so we were planting acorns into the longest milk cartons we could buy and putting those into a vegetable garden but then we found that taking them out of the vegetable garden they were really hard to manage and we would damage the root systems, and it was difficult to get them planted. So, Jon, you came across the Swedish way in a book or something.

Jon: We were collecting some seed while we were in America and then we went to a nursery that had a lot of Pinus and Quercus species, and they were selling seed. And one of the gentlemen there, when we arrived he took us for a walk round in the nursery, which was growing four million plants or something like that, all in containers. And he showed us these containers and how you could lift the seedlings out and they were using them to grow their oak species for plantations. The more I thought about it, even by the time I left I was pretty sure that was going to be something pretty interesting. So we kept in touch with him and got him to send a few trays, and we experimented with them and then we asked if we could buy some trays and we ended up making contact with the Swedish company that manufactures them. And then, yeah, for a period of 10 years we ...

What's the distinctive feature of those as compared with tube stock or root cuttings?

Jon: Well, they're ... the trees are air pruned in these trays, so the tray is supported above the ground, and it has a hole the size of my thumb in the bottom. And it's only 90cc so it's only a little tiny pot. Each tray has got 40 of these cells and they've all got that hole and they're sitting above the ground, and you keep watering them and feeding them and the roots all grow down the side wall but then when they come out in the air they air prune. And so you end up with a tight knot of roots but they're not circling, they're all trained to go down the sides to the bottom. And then you can pick up the tray — you've got 40 trees in one hand — and you can pull them out really easily and just put them in a hole. And they use a tool called a pottiputki to put them in. It's like a duck bill that you push into the soil and it opens and you drop the tree down the tube and you don't even have to bend over. And we were able

to use those ... we'd already started bare-root planting and with the bare-root planting you've got a ripper that you pull along through the soil and it opens the soil out and you can put the tree down behind the ripper and then two press wheels close the soil. And you could use these HIKO seedlings in the same principle. So, we decided that was something we wanted and ...

Vicki: Reduced the cost of the seedling and it meant a much better survival rate.

Jon: Yeah.

What sort of date was this? Which decade?

Vicki: it was the 1990s, so we started to sell the trays at Treefest in '92. We brought in a shipping container ...

Jon: Yeah, we brought a shipping container — the people in the factory in Sweden were quite fascinated. They'd heard that there was an order for some of these trees, a container load of these trees ...

Michael: Trays.

Jon: Many, many, many cells — you know a 20-foot container and ...

I'm staggered, even at this distance.

Vicki: The poor guy over there, he rang, and he said, 'Jon Taylor?' And Jon said, 'Yes.' And he said, 'Hi. You've ordered a container of HIKO trays.' And Jon said, 'Yes.' He said ...

Jon: 'What sort of trees are you planting?'

Vicki: Yeah. 'What are you doing?' And Jon said, 'Well, I'm a sheep farmer.'

[Laughter]

Jon: 'And we're experimenting. We reckon these trays are going to work really well.' 'Oh yes.' So, you know, 'How many trees are you ...?' 'Oh, we're going to grow, you know, quite a number, and I reckon I can sell the rest to other people around.' 'Oh, rightio,' you know. We ended up buying many, many, as a separate business. We ended up bringing in many, many large container loads of these and selling them to a lot of nurseries around the State. We have even State forests in New South Wales still use that tray system and ...

Oh, my goodness.

Jon: ... and APM in Victoria and a lot of other big nurseries adopted it and so that helped, sort of, keep us afloat financially while we were busy planting.

Vicki: Yeah, that's really how it funded our tree planting, I guess. You know, we could justify planting trees because we had this side business. And, again, we were meeting ... you know, we were travelling, meeting people, going to ...

Could we just elaborate on that a bit because what you did, you became very open minded and keen to search. Where did you go, apart from the district, and the State and Gippsland and where else?

Vicki: Yeah. Victoria was the start but we started to collect the acorns from the Waite Institute down in Adelaide, and Canberra — the street trees of Canberra was a great source of acorns. And then we got to know Bill Funk down in Victoria at Dunkeld, who has a huge arboretum of ... tree collection. And he told us that Mexico had the largest collection of oak species, and at that time he couldn't afford to go anywhere. And he probably saw us coming as suckers [laughter]. 'You need to go over there.' And we thought, 'Oh yeah, that sounds like a good idea.' So we went to ...

Was there a commission of acorns in this advice?

Vicki: Ah yes, we had to ... he'd given us a lot of trees and we had to bring back acorns for him.

Michael: He even collected some here last year, off our trees.

[laughter]

Vicki: So, he ... and there were other people down in Vic ... There was a guy in Melbourne growing ... in his backyard really ... all sort of different types of oak trees. And we visited him.

Michael: [indistinct]

Vicki: Yeah, my mum, she's got a lot of trees from Bill and from the [indistinct]. But, so we went to the eastern coast of America and Mexico, and collected a lot of acorns and trees there. That's the only time we've collected plant material outside the country, and now it's virtually impossible.

Jon: Yeah, we had to do quite a bit of work preparing that and we contacted the quarantine folks and found out what was necessary to be able to bring them in. We had an esky and even on the flight back from the States, I spent quite a bit of time in my seat with the esky on my lap and pulling out packets of seeds and checking, because, you know, we'd recently collected them and because it was a bit warm, you know, just carrying it in the esky, some of it was already starting to put a shoot out, and if there were any shoots on seeds I'd pull them out and put them in the, you know, in the 'be sick' bag in the seat and, yeah. Then went we got them to Sydney they had to all be labelled with their variety ...

Botanical names.

Jon: varieties they were and that sort of thing. And we had no trouble bringing them in and we still wonder how well they actually checked them at the time, you know, they ... We had to give them the whole thing to check.

Vicki: I don't they did at all really.

Jon: And they did that but they did it so quickly that I don't reckon they ...

Vicki: And we couldn't believe our luck. We just threw them in the car and took off home. Woooo.

[laughter]

Yes, I've done the same thing. [laughter] No, I have checked beforehand and had them all properly labelled.

Vicki: Yeah, it's not difficult if you do the right thing.

I think probably they also look at the people who are likely to be doing things, wanting to do things by the book.

Vicki: Yeah. But it has changed a lot. Bill Funk, he used to collect cone material and seeds from all over the world and he can't do it now.

Jon: And he's well known for his collecting and yet he can't get stuff in that's not fumigated anymore so ...

Vicki: You have to grow it out in quarantine.

Jon: So we were lucky to be able to expand the ... you know, there's probably, out of the 80-odd varieties that we've tried, there's probably only, what, 50 of those that are actually ones that you can collect in Australia, reasonably easily. The others were all ones that we had to get in the States or in Mexico because there's not ...

Michael: [indistinct]

Yes. It is a demonstration of how conscientious you have been in, not just checking the legalese for importing but the determination to travel and to get the widest possible range of species to plant.

Vicki: We didn't really do it as a plan, you know. It was something that we loved doing and we found really interesting. And it was a great excuse for a lot of the travelling so ... yeah, we didn't set out to create the garden that we've got or to introduce that many different plants to the place.

Nevertheless, nevertheless, a man's hobby has eventually to be justified economically.

Vicki: That's right.

But just before we get onto that I want to just go back to the business of the planting. Clearly most of your species have been planted in lines or in blocks or ... but on your aerial photographs you can also see there are quadrant plantings. What's the philosophy behind that, as distinct from the lines and blocks?

Jon: Well, it was a progression and, once again, it was driven largely by the costing, you know, trying to do it as cheaply as possible. So we started off with small fenced off lines along our boundary fences of paddocks or the farm, and then we could see that they weren't always necessarily planted in the best spot for trees to grow, you know, so we started looking for specific places on the farm where the soil was, perhaps, not quite so productive or where it was a hilltop that was very exposed. And we fenced off a block, probably more a rectangle or a square, and we started planting them there because there was less fence for the number of trees and that you were planting. And then later on after a little bit of experimenting and quite a bit of looking and thinking about it for several years, we decided that we should be able to take a whole paddock and not put any fences in, just plant where we want the trees ...

Vicki: Yeah, but before that we did plant some along the slope to provide more shelter across the paddock, and we did have a visit from Ron Watkins from Western Australia, and he looked at those lines along the slope and he said, 'But you haven't planted them on the contour.' And we said, 'No.' And he said, 'Well, maybe you should look at doing that because that way you provide shelter without creating wind tunnels.' And you actually went over to his place in ...

Jon: Yeah. At that stage we were selling forestry equipment in Western Australia and doing some consulting with the company as an agent for the company that made the trays, and while I was over there I went and visited this particular farmer who used the Keyline plan, the Yeomans Keyline plan, which was quite a well-known innovation, where they tried to do all their farming on the contour and catch the water flow instead of it running down the farms. They were round the contours so the water sort of accumulated and sank in. And, yeah, we could see a lot of merit in that. That was a bit before Treefest, and then he came over for Treefest as one of the guest speakers. And when we looked around he made some more suggestions and we could still, at that stage, we were still trying to figure out, you know, whether we could actually take out big enough paddocks out of production for a couple of years and then gradually put the stock back in once the trees had started to grow.

And it was almost always mixed economies in your planting, whether they were lines or blocks.

Vicki: Yes, we used ... and we used radiata as the main tree because it was the cheapest and easiest ...

Jon: It was the cheapest.

Vicki: ... and had the best survival rate. And it also would cope. And then we tried other species and then we were able to gradually plant more natives because the pines were providing the shelter and it was easier to get the natives to survive. And at that stage, too, there were nurseries starting to grow the native plants. And the Kentucky Tree Nursery we ... We had our own nursery here and we advertised for somebody to grow under contract for us because we could see we didn't have the time to do that. Well, Chris Everleigh of Kentucky took up the challenge and he's still doing it. And so he would grow for us and anything extra we would say, 'Go for it.' So he was a terrific person to work with and he very quickly learnt a lot too about what grew where and species, collecting the seed and things like that. So we worked with him for a long time.

Now, Michael, you've been sitting very patiently listening to all of this ...

Michael: Taking notes.

Which is obviously in the family ... in the blood. You were probably born with this. Where do you see you, your consciousness appear in this story we've heard of your parents so far? At what point do you begin to take an interest?

Michael: I think both my parents ... I've grown up knowing ... only knowing big gardens and then from, you know, from beyond the garden fence all the trees in the landscape, whether it was building cubby houses or being dragged along in winter to plant trees or something to do with propagating or collecting cuttings. I remember collecting poplar cuttings along the highway and then acorns and now, you know, eucalypt seed and whatever else we can find. And propagating acacias. I remember growing acacias in my cupboard when I was at boarding school as part of the Treefest. One of the competitions at Treefest was who could grow an acacia ... the biggest in a certain time period so I had an acacia growing in my cupboard, much to the suspicion of the boarding house staff. I didn't win. [laughter] It must've been too cold in my boarding room.

A blight on that school.

Michael: I think it's, yeah, I'm privileged to have ... and I can really see that now. I'm really privileged to have grown up with that. And it's much easier to take it to the next step and I can see ... I've been able to see the trials and tribulations that my parents have gone through, whether it was the ground preparation or the planting techniques or the propagation issues or the selection of species, including fertiliser application. And I was tasked with the ... there was a ... it was thought that there was a Boron deficiency on ... and there is a Boron deficiency on one side of the property and trying to get Boron into the pine trees. And myself and another Irish bloke were sent out to spread a little bit of Boron on the pines and I guess that's where I started killing trees. We managed to burn quite a few trees with Boron. And, yeah, as many trees that have survived, we've also seen a lot die and I think now, you know, with the drought we had in 2013/14, we were seeing a lot of trees that were 20/30 years old starting to die out just because they've never faced dry conditions like that. It was those

couple of years that we lost most of our birches on the property and a lot of willow species that had never seen it that dry. And since then I've experimented with sequoias and I managed to kill 100% of those. [laughter]. We've got one just outside the studio that we're sitting in now that's 30+ years old and it's a magnificent specimen of a tree ...but, yeah, I managed to kill 200 of them. And they were either eaten off by 'roos or frosted or killed by the heat and the dry so ...

Jon: Experimenting is still going on.

Michael: Experimenting is going but at the same time I've had my fair share of successes and as well, and it's ...

And what do you see as your particular contribution in the success rate?

Vicki: Lots.

Michael: Well, I guess persistence.

Jon: Persistence.

Vicki: Yeah.

Michael: Persistence. I've been able to draw on ... obviously draw on a lot of the successes of my parents. So, I've put in contour plants and also lots of blocks of pine trees for timber production. And as I was saying earlier, my first bigish planting ... two-hectare planting of 3000 radiata ... *Pinus radiata*. And we'd done all the ground preparation and the fencing and the weed control, grass control. And I went out with my father and I, and we planted the 3000 trees in a morning, in four hours, and my father told me that I'd get up to speed one day. [laughter] This is, you know, this is my first attempt. I thought we were doing pretty well. Over on our other block, that my sister Katherine now runs, we'd seen plots of pines do particularly well in some areas over there and established one nearly ten-hectare pine forest. Mostly planted on the contour. It was a granite ridge that had produced some really good timber so ... I'm talking a lot about forestry because that's ... that's just after I came back to the property my father had done a lot of research into saw mills. We'd already been producing peeled pine posts off the property, out of the thinnings from pine plantings, and the next stage is obviously sawn timber so that's working towards what my parents imagined might be one of the economic benefits from a lot of the trees they were planting. So in the first few years back here there was still a lot of emphasis on establishing and managing pine trees. So there was lots of pruning and thinning and tree selection and planting. And one of those plots now has got trees in it that's only... ten years ago and there's trees in there that have thirty-centimetre diameters. It's just phenomenal.

Can I just pause at that. That particular example of the success, I presume ... well you tell me what you think the inputs are to the particular success of that. What elements ... what made it so successful?

Michael: Well as we've seen, as my father mentioned, site selection was a really big thing, and we've got so many examples on the property now where particular tree species grow, or they don't grow and the types of soils they grow in and, I guess, just having that sense of observation, being able to see what grows well, where, was something that led ... was probably the main success.

Experience.

Michael: And, yeah, good understanding important elements in establishing trees and good ground preparation and weed control and pest management. I've probably gone on and I've taken on the odd project that's probably been a little larger than I could handle but I've also faced some seasonal variations that have also taken experimenting to another level. You know, similar species but different seasons. Again, I think that one of the key tipping points was, again, the drought of 2013/14 when we saw a lot of tree species dropping out but also in tree establishment it was one of the first times I decided to give corflute ... the tall corflute guards, the triangular corflute tree guards a go and we ... I was trialling them next to ... so this was mainly on natives, this was all on natives actually ... trialling them next to milk cartons, that had been the standard form of protection. And that year we had absolutely no green grass pretty much left on the property, and everything that was in a 600- ml corflute guard was chewed off at six hundred mls. Everything that was in a 20-centimetre milk carton was chewed off at twenty centimetres. There were no shoots left behind. And it was just small things like that that, you know, made you think about other ways that you could establish trees. And we'd been ... Not long after it was visiting properties down in the Otways where they were using tall plastic tubes on... you know, this was two or three-metre tubes to establish trees to prevent 'roos and deer from browsing on the trees. So, yeah, I think the experimenting just went to another level and ... But I had the advantage of seeing everything that my parents had achieved or ... and the successes and the failures and ... Things like the lifespan of acacias on the property. We were seeing a lot of acacias come to the end of their life. So, acacias falling over fence lines and things like that were a big thing to consider. It was, you know, very costly having to cut acacias off fence lines, So I vowed never to plant wattles next to fence lines again. But even ... you know, even pine trees next to fence lines ... seeing some pine trees starting to come down. It's made me think much longer term. And then, you know, seeing the trees that my grandfather planted, and seeing how they've been going and what they're doing and ... So, the oaks are definitely a big part now. I'm propagating a lot of oaks and one of the reasons is I'm seeing a lot more longevity in that species. But I'm keeping my eye out for a whole range of other species too. I think, again, I've had the advantage of seeing all the things my parents had planted but, yeah ...

In the discussion so far there's been very little mention of fertilisers.

Jon: Well, we did ... when we first started off we were able to buy some fertiliser in that first or second year that was called 'a poplar special' and it was developed for a lot of the people that were doing poplar plantations down in the Kempsey and Grafton areas, and probably elsewhere — down on the Murray and that I think there were a lot of poplar plantations as well. And we tried using

that. And it certainly boosted the growth. But there were a lot of issues, like it was hard to put in the manner that didn't risk burning the tree if it was too close or being totally wasted, you know, fed to the grass, as it were, if it was not in the right spot. So, we decided that pushing them along too made them more susceptible to frost damage and frost damage is quite severe here. You know, we're regularly seeing, in this area, regularly seeing more than 20 degrees between daytime and night-time temperature in this area, and I think, compared to a lot of other areas, it can make quite a difference to the damage by the frost. You know, to have 25- degree day when the plants really are jumping and ready to go in the spring, it starts ... the sap's starting to move and everything, and then overnight it will be minus 2 or even minus 5 sometimes. Sometimes it gets up over 25 degrees difference even, as you know. Yeah, so ... so not pushing them along quite so quickly with fertiliser, we thought maybe it was a good idea to stay away from that. We also, as Michael said, we had some problems with Boron.

Vicki: But then the pines were actually treated with Boron as they came out of the nursery so we didn't have to use Boron once we'd planted them.

Jon: They started to feed the trace element into them in the nursery and ...

Vicki: That definitely made a big difference.

And your selection of trees has really been tailored to the condition of the soil that they're going into.

Vicki: Yeah, I think the ground preparation, we found, was more important than anything else. And even ... people asked if we watered the trees after we planted them. Sometimes we've had to water in, in that we give them ... we have been known to give them a litre of water just to seal the soil around the seedling, but we've never gone back much at all to water them later.

Michael: Except in 2013/2014, that was the first time ever I've known going back and doing a second watering.

Vicki: But it's the ground preparation that's done effectively we found we didn't really need to.

The condition of the soil was more for storing the maximum amount of water.

Vicki: That's right, yeah.

Michael: Weed control is a big thing up here in New England ... grass control [indistinct] competition.

Jon: We found we had to do a spring planting. The autumn planting here, it was too rough on the seedlings; to plant them and then they go into a five-month period really when the frosts are so severe that they can't grow. And so, you know, the hares and rabbits are willing to nibble them down a bit and the frosts

are belting them down and they're getting ... you know, you plant them and they get smaller and smaller for the next four or five months.

Michael: Which has been a big difference with a lot of the work that had been done already down south, in Victoria or the Southern Highlands. A lot of their seasons are around the other way and they're getting moisture in the winter. Even up here it's limited to the tablelands because obviously the further north you go it changes again and if you go out west it's different as well, and down on the coast. So, we've had to learn a lot of things that are quite particular to the New England tablelands.

Vicki: The HIKO system made a difference there too because you could plant in the early spring and the plants would start growing immediately so they were able to handle the higher temperatures.

Jon: The thing about spring planting too is that's the time when all the other grasses and things like that are going to be taking off most quickly and competing, so it was particularly important to make sure that the ground preparation was ... and the wet grass control was part of the ground preparation ... was done really well. We found any years where we had that done almost perfectly, we got very good results even if it was a dry year but if there was a bit of a breakdown and there was a lot of weed growth coming in the planting lines, well, yeah, it was often hard to get a good ...

So when you talk about grass control, this means tillage so that ... they're starting on a level playing field. Both the tree and the grass but the grass doesn't have the advantage.

Jon: Yeah, it was a regime. We found that was the most successful was to spray it out with ... mostly we used Roundup ... and sprayed it out and then we had ripped it maybe before but maybe after, and then we rotary hoed it, which further controlled anything that had germinated after that. And then we used a residual spray that was not affecting the trees and we had a few different combinations for different types of trees and by putting that residual on we could get right through the spring period without any grass growth coming. So it was often ... the tree had it to itself. It had all the moisture in that metre-wide strip probably until Christmastime and then after that, if it was moisture in the summer, it would be starting to be a bit of grass coming but the tree was that well established by then that it could handle the competition.

Vicki: And the rotary hoeing made a big difference because it gave you a good planting bed as well as the residual spray was more effective when the ground was flat. So, we always talked about the fact that we don't grow your tomato seedlings in the middle of the road, you dig up a bed, you know, and rotary hoe it and till it and whatnot to have a really good planting bed. And we do the same with the trees.

Do you have you any observations to make about the actual structure of the soil and determining how water retentive it is?

Michael: I think, yeah, well, I could definitely say, you know, even again — I keep referring to the 2013/2014 drought but it was quite ... that was a very dry period and some of the ground preparation we did for that ... we got through to probably February, March, and I actually had a group out here as part of a master tree growers course that was being run here, and we went out to one of the sites and I was able to quite clearly show everybody how much moisture was in the ground in the areas that we'd ripped and prepared and controlled the grass. There was still a lot of moisture in the soil there. You could've dug anywhere else and there was no moisture because the grass had sucked it dry but in the prepared ground there was still moisture to be able to plant.

Sustain the trees.

Vicki: Yeah. It is important, too, it wasn't just one rip line, it was three rip lines so that you're breaking up the structure of the soil.

Yes.

Vicki: You know, a good metre strip.

Jon: We aimed to have a trough of soil that was 18 inches or two feet across, and you could — with your bare hand — you could dig down, you know, a foot and that quite easily so it was easy for the plant to establish roots.

Michael: There was a lot of ... in the early days, even going back to the 90s and Treefest. Again, coming out of Victoria, they'd already done a lot of work on direct seeding natives as a very effective way of planting trees cost effectively. But we've found in a lot of sites on the New England, direct seeding has had a very mixed result in terms of success. And we do have a direct-seeded site but it was a site where the grass wasn't as competitive. But a lot of the other places — and there are still properties still attempting to direct seed and not having the success that they do down in Victoria and in other areas, which is why we haven't done a whole lot of direct seeding. But a lot of people, a lot of people still ask us why we haven't done more direct seeding. We're having a ... It's been a different story, direct seeding the oaks because the acorns are quite a large ... have a large kernel and there's quite a bit of ... They do a lot of their root establishment during the winter and so even when the summer grasses get up quite high, the roots of those that have been well down beyond the grass, and we've actually found the oaks doing perfectly fine in areas where we've done no grass control at all. And they've even possibly been protected from some of the animal browsing that's happened. So, it's been interesting to compare those things as well.

On the subject of comparisons, I know that you are all very modest people, but you must've looked over the farm fence and had instructive lessons about what other people were suffering that you felt was modified on your place because of the trees.

Vicki: Yeah, but you wouldn't dare say anything though.

No.

[laughter]

Well, let's look at your own property as you develop it. The areas where you would have practiced most assiduously, this tree culture, you would've noticed an improvement in its stock-carrying capacity, or grass retention for pastures or where you've got a mature planting system.

Vicki: We've had huge ... every field day gathering and meeting that we've ever been to, there's always discussions about that and we've had a lot of discussion with Martin Oppenheimer, who lives next door. His management style is different to ours. He thinks he's done the right thing and we think we've done the right thing but obviously he hasn't changed doing what he's doing. The family around about, the older members did quite a lot of tree planting when we were doing our tree planting, but the younger ones have been through agricultural colleges and have obviously been taught, you know, a lot of ways to do things. And, yeah, it's always fascinating but, like I was saying to Lynne [Walker] earlier, you never know till a hundred years down the track whether you're doing the right things. So you can't swear that you've got the right system and somebody else hasn't. Obviously the general consensus is that some people are mining the farmland and other people are trying to restore it to a more sustainable level. But I think here, personally, our mantra has been able to leave the farm in a better state than when we took over. And that's it.

And this multi-generation input and ...

Vicki: It makes it a lot easier.

Yes.

Vicki: Because you've got a greater timespan to work on something.

You have the received wisdom of multi generations.

Vicki: That's true.

And you have the example of multi generations working in, generally, the same direction. So in a young country, like Australia, that is often very very rare, and it's even more rare to have the next generation agreeing that the former generation has been on the right track. And so you get a wild oscillating, a veering from one system to another. Whereas this place is obviously benefiting from its third generation of sympathy of interest.

Jon: It is interesting to look back over the history and our forefathers here on this land. They actually had to reduce the number of trees to be able to grow more grass because it had, you know, a 90% tree cover. And so they set to and they took some of the trees away and only cultivated small areas because they didn't had the machinery to do more than that. And then later on, it came to my like father's generation, they were the ones that started to put out the fertiliser.

That was the thing that was their, sort of, expertise at that time. And they added the fertiliser and the stocking rates went up and they did more fencing and the place was fairly humming. But then towards the end of that the problems of New England dieback, which had largely arisen from that era, that started to kick in and become a major problem so they were starting to put a few, you know, try a little bit of tree planting. And then we felt that our generation has probably mostly contributed to revegetating the farm. And then Michael's generation is still battling with whatever's coming. And they've had some difficult seasons as well, so ...

But you had the '96, was it the '96 drought that was so intense.

Vicki: Yeah, well we've had dry periods.

Jon: There have been droughts but there have been some more prolonged periods of difficult rainfall patterns, I think, since 1980 or something.

Vicki: I think it's gradually getting drier, so each dry period is just slightly longer and ...

Compounding the effect of the last ...

Vicki: Yeah, and when it does rain it doesn't rain quite so much, so you're battling with all of that. But thinking about all this. It's all very well to try and measure everything in terms of economics production, but the aesthetics play such a huge part in it. And coming from gardening families, I think that has also played a large part in what we're doing. And we're certainly getting the pleasure from it now because it looks, you know ...

Michael: Feels good.

Vicki: Yeah. It feels good.

Jon: Michael, I think, commented ... I think Michael commented at some stage that perhaps he mightn't have come back to the farm if it hadn't had any trees on it.

Michael: The social ... the social benefits are just starting to be realised and we've actually just taken part in another national project. In terms of ... in terms of, I think the evidence is slowly building over generations of the benefits of what has been going on here but it may not be for another one or two generations before those benefits are fully realised in agricultural landscapes and education. There's definitely plenty of literature and field days and workshops and ... but farmers are still reluctant to take the plunge. I think the long-term thinking is hard for a lot of them to get their head around. But the research project we've just taken part in has brought in a lot of the social benefits. And they've got a huge number of metrics that they're able to objectively measure now and they can be translated into economic terms, and I think those economic terms are always easier for farmers to justify than just 'Well it looks nice.'

Michael: I like planting oaks because of their pretty colours.

Vicki: Yeah, well we like it but most other people don't notice. I mean they ...

Michael: They're counting the ...

This is the garden history coming in.

Vicki: That's right, yeah.

We've all got that in spades and that has been one of the underlying drivers.

Vicki: But that's not everybody, is it. It's only ... you know, most people would wonder why you bother.

Michael: That's right. But I'm even planting oaks that I know are not only beautiful but the potential value of the timber in those alternative species is something I think might, you know, might encourage others to take an interest in it because there's a side to planting trees that, yeah, there are a lot of economic benefits beyond just aesthetics, you know.

Low carbon retention.

Michael: The farmers of the Bridges of ... what's its name County in America.

Vicki: Madison County.

Madison County.

Michael: They actually draw funding from their tourism bureau to maintain their oak trees because of their economics involved in the number of tourists coming to see that area. So, small things like that have definitely opened to my eyes to ...

Vicki: That was something we talked about though, was about increasing the biodiversity. And that's another reason for planting anything that will grow and as many different species as possible. Biodiversity for the environment but also for income down the track. And we have talked about tourism and things like that too.

Jon: We just had ... Vicki's activities in the studio here ... we've just had a group of, what, 19 ...

Michael: 18.

Jon: ... people were here for ...

Vicki: There were 18 at one stage anyway.

Jon: 18 people. Just a couple of weeks ago. And they were here ... a lot of them were watercolour painters, and they were here basically because of the colours,

Michael: Autumn colours.

Jon: ... the autumn colours, and the patterns and things from the tree plantings. So ...

Michael: We had painters all over the farm, spread out right across the farm, painting the landscapes here because of the ...

This was Min Atkinson?

Vicki: No, no, no.

Another group.

Vicki: She's a Queensland lady. But we also had an English lady here. She took her class up to the Treefest site in the morning, and they were going to come back for morning tea. We saw them at lunch, which they gobbled down and flew back up there, and we didn't see them until 4 o'clock in the afternoon and they said ... the tutor, she said if she could do that at every workshop she'd be in seventh heaven. But it was a beautiful day.

Michael: I'll just add in there too, we actually ... what was that, seven years ago ... we started hosting a big land caravan for school children held up here on the New England tablelands called 'Frog Dreaming'. And it's a two-day environmental workshop conference for Year 6, so age 11/12 school students. And they actually come out ... they were coming out to the property here ... it's got a big ... there's a big cultural part to the conference but the landscape side of it is also very important. We actually hosted that for four years. The kids come out and camp overnight, so they spend two full days out on the property and we actually involved my job, apart from being host, was to actually involve them in some of the tree plantings that we were doing, including a 250-metre-long forest that can be seen from the air in the shape of a frog. You can see that on Google maps, if you want. Or as you fly from Armidale to Sydney ... if you've got sharp eyes.

Or Sydney to London.

Michael: ... if you've got sharp eyes. I definitely wouldn't recommend planting trees in the shape of a frog, it's quite complicated. But it's small things like that that have added a huge amount of interest and attraction to ... inspiration to continue. Definitely the farm is my garden.

We were talking about complexity, diversity. And in the car earlier, Jon, you were talking about this fieldwork that was done by the university counting insects on different plots of soil. If you'd just like to summarise that.

Jon: Yep. Well there's some ... I don't know how I can put it together but basically they were interested in monitoring a whole lot of aspects of what was going on on the farm with all the tree planting we're doing because it was a larger scale tree planting and they were able to get students and some funding to be out here and actually collect samples and monitor things. And one of the things they did was to take an interest in the insects, you know, remembering that the dieback in New England was caused largely by a build-up of certain insect species and it didn't have enough counter controls to it and so it sort of overdid the job of defoliating trees and producing huge numbers of beetles. Yeah, so they went along the rows of planted trees that were still ... the crown of the tree was, you know, only 15-feet high or so, so it was easy for them to run a net along and collect a lot of insects. And they went along the native ones and the particular insect species ... you know, like the spider family or what have you ... they were able to collect something like 40 different species on the eucalypt trees and then when they ran their nets along the mixtures of pines and poplars, and things like that — we didn't have many oaks at that stage, but the poplars and pines in particular. They collected the insects off those and they discovered that there were approximately 40 different of these same sort of ... same species, same ...

Vicki: Families ...

Jon: ... family of insects and, yeah. And then they took them back and they identified them more closely in the lab and they discovered that out of that 40 on one lot and 40 on the other, there was only about ...

Vicki: Two.

Jon: Yeah, two — there was only two. I exaggerated saying four because ... There were only a very small number of insects that actually overlapped and they were on both trees, and so there was a very considerable argument that planting the diversity of trees has considerably diversified the insect population and, therefore,

Both good and bad

Jon: ... checks and balances between the insect [indistinct – overtalking].

Vicki: That's right. Unfortunately, they couldn't carry on and do more research as to which were good insects and which were bad but they were pretty certain that the ones on the exotics would have been bad and the ones on the natives were good. [laughter] You know, that was as far as it went, and, yeah, it was a shame they couldn't have done a bit more.

Michael: We've also found koalas living in our pine trees and that actually took quite a while to convince people that ... until we had photographic evidence.

I've had that too, at home. Ninety-feet up. [laughter] And this, I think, although I haven't read it yet, is partly what Charles Massyⁱ was interested in when he came to visit you.

Vicki: Yes.

Would you just like to comment on his observations and his subsequent writing?

Jon: Right, OK. Well, Charlie Massy was ... The initial contact with the family was because he was at university with my sister and her husband in Canberra, and they always wanted to, sort of, you know, be on a farm together and Charlie obviously had his own farm and that. So they kept in touch over the years and Charlie drops in and catches up with the family here as he goes past sometimes. And he was aware that we were doing a lot of this tree planting so when he started to realise, on his farm down there, that there was ...

At the Monaro.

Jon: Yes, the Monaro ... that there was some pretty interesting stuff to, sort of, to give some deep thought and to collect more information for his book, he came and he studied closely what we'd been doing because of the scale we'd been doing it on. And, of course, he went to several other places, even in this area that had also, sort of, come up with new ways of managing the land. And, yeah, so he discovered that there were some good points about what we were doing here.

[indistinct]

Vicki: His book's about the ... He first of all discusses the damage that white people have done to the land in Australia since 1788 and the disastrous consequences for the Aboriginal people and the natural landscape. And he discusses the fact that humans change the landscape but the landscape can also influence people.

Jon: Can adapt.

Vicki: Yeah, that's right. And it's an adaption on both parts — humans and the natural world. And then he used case studies, I guess, to show how people are tackling the problem, and how they're trying to rejuvenate the landscape. Not to the way it was but to a better state, a healthier state. So, I've just started his book. It's quite depressing for a start, but then I gather it improves with optimism that people can change things and make a difference. So ...

What did he say ... because I gather there was a section on this place in there.

Vicki: Yes.

He had some observation about bird species numbers?

Vicki: That would have been information that we gave him about the bird species numbers.

Oh, right.

Vicki: Definitely increasing since the ...

Jon: We've had a huge increase in the number of birds on this place. Not just the numbers, you know, but probably at the lowest point there may only have been 50 magpies that lived on this farm, and that was just the magpies, there were obviously crows and wedged-tail eagles and a few of the more common things. Now I'd say the number of magpies is in the thousands, and the number of birds, you know, sighted in a 12-month period has probably gone from something like 80 up to like 120 or 30.

You're talking about species.

Jon: Species, yes. And a lot of species that we never saw before have come back here, and, presumably, would've been here at some stage. But they've come back because they've got the shelter.

And food, all those insects.

[laughter]

Michael: We have black cockatoos that winter over every year now. Feeding on pine cones and finding more local nesting sites. But just in regards to Charlie. A lot of his work, his early work, with his PhD, was on what had driven farmers to change the way they were doing things, and a lot of farmers have faced a serious situation, whether it's been a drought or a flood or a loss of landscape or dramatically low commodity prices or something that's forced them to rethink the way they've had to do everything. And I think ... I've always heard my father and my mother say that it was ... they were in the landscape it just didn't, it didn't feel right. And it's tipping points like droughts and things that have changed the way people ... changed the culture of the way people think about things. They've been forced to. So I think while a lot of farms are going along still making a small profit, it's not necessarily the aesthetics and social benefits that are going to change the way other properties do things. But, yeah, that's what I was saying. But the evidence is continuing to build again, like I said, the economic benefits of those things are building up slowly and, you know ...

Just reverting to the comment you made. In town I notice the parrots have huge numbers in the garden because they have a lot of oak trees and they come in ... they arrive for the oaks. And as for native animals not being able to exist on exotic species it just ain't so [laughter]. Whether it be fruit trees or vegetable gardens or oaks.

Jon: Round here the parrot species picked up a lot ... we've got a lot of cotoneasters and pyracanthas and a lot of those berries too. You know they

come and pick every single seed, take a little nibble out of it and drop the rest. [laughter] They're very wasteful but, yeah. But nevertheless, there's food for them.

Well they can be at this scene of bounty. [laughter] They can afford to be wasteful.

Jon: And here, often in the springtime and early summer, in particular, you can sit down on a seat there and there would be no time during the day when you couldn't see birds flying to and fro somewhere. It's not just one or two down the garden like it used to be, it's just a ... the sky is full of them and the trees are full of them.

Michael: The last few years have seen lots of groups of chuffs — apostle birds, chuffs — round and it's just ... it's a real joy — secret joy — to come round the corner and see a group of chuffs ruffling around in the leaf litter or ...

Jon: Or trashing the vegie garden.

Michael: Or competing with the magpies or ...

Do you keep a register of birds?

Vicki: No. Oh, yeah, well, only from the kitchen window. So anytime ...

That's no bad observation point.

Vicki: So anytime we see something different it's marked off in the bird book.

Yes.

Vicki: We try and identify them.

Yes. A really important thing to do I think if there's lots of ...

Vicki: We're continually finding birds. We found a drongo in the garden and we've never really registered ...

Yes. I've had a drongo

Vicki: Have you?

Mmm, yeah. Only one.

Jon: We've only had one too

Vicki: Every afternoon the satin birds and the male bower birds come out. We've got two or three bower birds and another female's there, and it's interesting watching them. And my mum hated satin birds.

Yes, I'm not very partial either. [laughter]

Vicki: No, she said if we've got more than two, to do something about it. But you can't be environmentally responsible only in certain areas.

You're more pure than your mother?

Vicki: No, I think only realising you can't be too ...

Selective.

Vicki: Yes. Selective.

Jon: You have to take a little bad with the good.

Vicki: That's right.

Michael: You have to trust in Mother Nature correcting some of the imbalances.

You've got to take the long view, as we've been saying.

Vicki: Yeah, she'll sort it out.

Well, yes, I had noted down before we started this, before I left home that I would need you to get make observations about the wisdom of the years. I think we've done a lot of that already, but it nevertheless is critically important for me to not only have the awareness and pass your information on but have some sort of set down recognition of the progress of change. Have you kept diaries, or do you keep a record of photographs or do you ...

Jon: Some of those photos.

And this is, are you doing more of this would you say?

Michael: Yeah, look, I think we already had ... my parents already had a little bit of a record. They'd taken a lot of photos of early plantings. But recently my aunt, my father's sister Jane, Jane McMillan, she's added to the written history of the family that had been done by Liz Gardner and *Terrible Vale: No Time like the Past*. There was already a lot of pictures, photos — old photos that were collected, and that. But the emphasis there was on the historical content in people terms but [indistinct] in people and structural terms in those photos and my aunt Jane has recently brought together a lot of old photos — slides and negatives and printed photos — into a collection...

Vicki: Digitising them.

Michael: ... and digitised all those to hand around to all my cousins and family members. But, for me, one of the most interesting things has not always been the people in them — the portrait — but the trees and what's going on behind.

Where are those trees behind that building or beyond that fence or what are those trees the sheep are standing under and, look, all those trees are gone now. I've been able to go back in the last few years I've been photographing a lot of those and finding new photos to take photo reference points.

And this comparison which you've brought and kindly prepared for us, it is truly instructive, for not just for family but for people to see the amazing difference that one generation ...

Vicki: Everybody that comes here wants to know, you know, what it was like before, and especially in photographs so I think ...

Michael: It's easy to see the trees as they are now but to see where we've come from.

Vicki: For us, I think we're so busy with our heads down, you don't think of recording what we're going at the time. So much has been asked by other people, you know, 'What was it like?' 'Have you got photographs?' Yeah, we have, actually, I'm getting them out putting them in a form.

That may well be a hugely important thing for you to do because ...

Vicki: I'll be hanged, drawn and quartered [indistinct]

[laughter]

Michael: It's been a really good objective measurement too of what's happening. It's still ... again, the question came up earlier today, what percentage of tree cover do we have on the farm. There's still no really easy way of being able to measure that without sitting down and meticulously mapping out ...

Vicki: We did have one person do that.

Michael: Yeah, but it was still done manually, measuring out the area that the trees cover on the property. There's a ... I've got a few different digital mapping platforms and groundcover platforms but even those aren't ... and I'm still looking but there's still no digital way ... it's very easy, not cheaply to measure tree cover but a photo, you know, a photo says so much. It's not just interesting in objective terms but the aesthetics is ...

Vicki: And the tree health ...

Michael: Tree health.

Vicki: And in the '50s you might have had quite a bit of tree cover but half of them might be three-quarters dead.

Michael: Yeah. I think that having a lot of European visitors on the farm, something that always is asked is, you know, 'Why are there so many dead

trees?’ And a lot of Australians don't even realise that, you know, eucalypts live half their life as a live tree and half their life as a dead tree and that's how a lot of our native animals have evolved...

Vicki: It's just as important.

Michael: So, being able to look back at a photo and see how many dead trees were around too is just as important as how many live trees ...

Vicki: A lot of people ask us what percentage that we were aiming for and down in Victoria, the people we were dealing with often spoke about a 20% tree cover so we thought, 'Right, that's something to aim towards.' And then you realise that there's a big difference between having a 20% in one corner of the farm and nothing, or having it right the way across. But once you get to 20% you don't stop. And it's like being a gardener. You don't stop, do you, gardening, just ... only because of the physical work usually. But you don't say, 'OK, that's it, I've done it all.' You just keep going.

So, you could really say — this is very crude — that it is your garden on a very big scale. You're trying to nurture things that are successful ...

Vicki: Mmm, definitely.

... and useful.

Vicki: And probably, now for us, we can sit back and enjoy it as a garden where for Michael, he's still got to make a living, and look after a family so his priorities are slightly different to ours.

Michael: Yeah. But then it's, you know ...

Vicki: But then he's a photographer. So he needs something to photograph.

Michael: The aesthetics are just as important and because I'm in a position now I can ... I'm deciding where the trees go and I'm driving the tractor with the ripper behind and I'm going, 'No, actually, I think I'll put in an extra row here.'

Veer north.

Michael: Or 'I'd like a vista through here so I'm not going to plant trees here or I think a little bit of a cull here would be good. I'm going to select some ...'

Almost Capability Brown.

Vicki: Yeah, absolutely. Oh yes. More Capability Brown than, you know, some of the other gardeners around, what's their names.

Michael: I do own four chainsaws and a number of pruning implements, and through our experience with agro-forestry we now recognise the significance of

managing trees, whether it's pruning or thinning or removing or ... it's just as important as the establishment, and ...

Vicki: We've got other problems, Like the weeds change, but they're always a problem. And you get blackberries now in amongst the tree lines, which are difficult to get rid of, and it's terrific harbour for foxes, and kangaroos and that. So, you know the problems are changing ...

Jon: And some people, some people when those, like ... see those contour plantings ... when they go to muster that paddock, it's just ... it's just impossible to get every last sheep because they hide behind trees there or somewhere else and you hunt the mob and you can't get through the row, you know, when the trees are just a low height, they've got a lot of low branches, you can't ride your motorbike between them.

Michael: I have actually, you know ... it's a job that my dad would never have had to do, but one of my jobs for the kids or backpackers that we have here, or workmen, is pruning trees purely so you can get your motorbike between them to catch the sheep as they come out the other side. It was a job that we didn't have to do before but its ... So you know, that's something ... when I'm planting trees I'm going like, 'These trees are quite near this gate, maybe I should leave a few more gaps.' It's not just the ...

Vicki: We were more 'Come on we've got to stop this wind somehow we'll plant more and more and more.'

[laughter]

Jon: So. there's a lot ... one thing that I thought of just a little while ago that I didn't make a mention of is that Vicki's actually kept a pretty good record, not of the exact numbers of trees but of the species and a lot of the things that were collected and where they were collected and that. And a lot of those trees she's also organised, labelled, you know, peg in the ground with a label on it saying what certain species were. And so it's easy enough for people to match them up that want to sort of follow up on the [indistinct – overtalking].

Vicki: It's like a family tree isn't it, everything keeps changing. Somebody pops in something that I haven't recorded or something's died so ...

Jon: We had a lot of people interested in oaks here about 12 months ago Michael took them around and he was able to, you know... we were able to talk about each variety which was which and, you know, people could understand him and they actually had the labels there so they, you know ... And a lot of other people in Australia are quite interested in expanding the oaks.

And just going back to managing with domestic gardening, and the last generation garden, visiting has become so ... it's pleasurable but it's a wonderful way ...

Vicki: Ah, really important.

... for non gardeners to see the benefits. But I can see you people have done this on a much, much bigger scale in terms of numbers and ...

Vicki: Well, they're not going to notice that the beds haven't been weeded.

[laughter]

No, but you are ... It is both a diverting and an educative experience for people whether they're farmers or forestry people or insect people, they are coming to a resource centre that you been ... you've been amazingly generous.

Vicki: Which has happened accidentally, really.

Maybe, maybe. But you can always ... there's always the word 'no' and you plainly didn't know that word.

Vicki: Well that's now we learnt, and any new gardener ... anybody that says, 'Now, what are we going to plant?' I say, 'Well, visit all the gardens in your area.' It's obvious. And even the old homestead sites where there's no buildings left, there's always some trees there.

You can tell where the sites were by the trees.

Vicki: Yeah, and you can see how long some trees will survive.

With absolutely no care whatever.

Vicki: That's right.

Cemeteries are a bit like that too.

Vicki: Yeah

[laughter]

Vicki: I don't go to cemeteries ...

Michael: That's a dead idea.

Lynne, you've been listening so quietly and politely, have you ... are there things that I should've covered.

Lynne: Oh no. One thing that fascinates me is your father, because he must've been ... I mean, your generation and your generation are very ... what you're doing within your generations is really special and rare. But in your father's time it would've been even rarer. But what motivated him, what inspired him is to start doing what you carried on?

Jon: Well, I guess, living through that period when the dieback was at its worst, and you'd look around and you'd see every eucalypt tree was totally stripped of leaves and dying. It was ... even if it was a wet season it was like a drought in the sense that the trees were dying. And that was ...

Vicki: It would have been different farm management at the economic level.

Michael: But Granny was ... the story I always heard was Granny would talk about — so my father's mother, Granny. She — Pat Taylor — she talked about being able to walk from our house to the letterbox, which is two kilometres, in the shade the whole way.

Jon: Yeah.

Michael: And I'm sure my grandfather would have ... my grandfather would have seen that disappear, so that was significant. And, again, looking back at the photographic record you can see quite clearly the decline already.

Vicki: He was a very quiet person, and he was a really good manager, so he would never have really come across criticism from his friends or family or neighbours because people were really sensitive to that and in this day and age, with social media and everything, it's a thousand times worse than when we were doing it. I think, in a lot of ways, he was probably able to escape under the radar and was able to think about what needed to be done in a very measured, thoughtful way without having to worry about what anyone else thought.

Lynne: Did his neighbours do similar things.

Vicki: Not really.

Jon: There was a little bit of tree planting in some places around. But not a huge ...

Vicki: There was the Kentucky area with the orchards and the trees around the orchards.

That was fairly monocultural

Vicki: It was but they were using the trees, the pine trees, for shelter and, you know, he would've seen that every day that he was passing through there but ... But it's not like he went travelling or visiting or had a huge library of gardening books. He didn't have any of those things.

And what you say about Jon's father, certainly wouldn't apply to your [Vicki's] parents too, who were hugely influential, in fact, on this development too.

Vicki: Yes.

I mean, much travelled, extreme well ...

Vicki: And they were really good friends with Jon's parents [indistinct – overtalking]

... really well read and activists.

Jon: Yeah.

So, different personalities but with that same curiosity of mind and the same field of endeavour. Yeah, lucky fellow.

Michael: Yes indeed. [laughter]

Vicki: Either that or ... [laughter] It would have given him some problems too.

Lynne: If you drive, for example, from Gostwyck around the back road through Mihi and come up through Dangarsleigh, there is nothing there.

Vicki: No, but that's a different ...

Lynne: So why ...

Vicki: ... mindset.

Lynne: Well, it's the mindset that fascinates me, that your parents on both sides stepped outside that 'Oh, it's dieback, we can't do anything.' And I hear that still, today. 'Nothing we can do, it's just dieback and, oh, it's the Christmas beetle.'

Jon: Just has to take its course.

Michael: I think that the area you just mentioned, out to the east of here, that's something I have noticed in the aerial photographic record. If you look back at some of the older aerial photographs, and obviously they don't go back a long way, but even the difference between the property here and the block my sister's on, which is only 8 kilometres to the east, they had a lot more remnant native vegetation on that side. And you look at their aerials photographs now, the area around Kentucky and on the top of the tablelands, where a lot of the early dieback had occurred, there is a huge number of tree lines that have been planted ...

Lynne: Oh, OK.

Michael: ... windbreaks. And you go further east and you don't see those because when those tree lines were being planted, they still had a lot of remnant vegetation on the eastern side. And I'm seeing ... I'm seeing a secondary wave of dieback that's occurring so a lot of those farms that were quite happy with the amount of tree cover they had — they had a nice scattering

of 15 to 20% tree cover, which was ideal. But there's nothing ... with industrialised farming, the regeneration of those trees hasn't been occurring ...

Jon: Happening.

Well, it can't, can it.

Michael: ... and we've had dry years and we've had pressures and that's ... now you see a storm go through, like recently out near Ebor there, near Wallumumbi, , sorry, and they have a nice scattering of trees but one storm has wiped out 50% of those trees. And that's, you know, a big loss of well-established, you know, 60, 80, 100-year-old trees.

Vicki: And also I think, when you think about the Nivisons were here, settled the area the same time, and Doctor Nivison, in particular, from Yalgoo, he was doing similar things to what your dad was doing. They did the fertilising and increased the stocking rates, and saw a huge jump in their production, and obviously the money they were able to make, but they would've both realised at a similar time that things were changing. And Jock doesn't have a huge garden but they were gardeners and he was starting to plant tree lines, like you see along the Walcha road, at the same time. And he was part of the dieback [indistinct – overtalking] ...

Yes, he was.

Vicki: And so ... And they were from different areas and different backgrounds but came to the same realisation at the same time and, like Michael said, this was the first area really to be hit by what we call New England dieback. And now if you drive from here to Melbourne they're saying, 'Oh, they're going to cop it. Oh they don't realise,' you know. And they're not doing anything about it. You can see that they're just following on behind what we've been through so ...

Michael: It's just been delayed — the delayed effect.

Well, this has been truly fascinating. I feel really privileged to be sitting here with you people. And I would like to thank you very much for participating.

Vicki: Oh, it's people like you that keep us going.

[laughter]

Michael: It makes us think about why we're doing it.

Vicki: Yeah, it does. Yeah, it makes us think about, you know, justifying what we're doing.

But it would be much more than that I think. People who read, not just now but maybe in future generations, and hear voices from this table looking back but also looking forward to what's you think is ...

Vicki: But, I mean, you guys are doing your own thing too, which is ... we've been, you know, we've heard about you for ever, and visited your garden ...

This is not the time or the place.

Michael: I reckon we're going to interview you now.

[laughter]

Vicki: But it's a two-way street.

But I do thank you and it has been just a wonderful morning. So, thank you.

Vicki: Thank you for visiting.

Jon: Thank you very much. I hope you've enjoyed it, yeah.

ⁱ Charles Massy, 2019, *Cry of the Reed Warbler*, University of Queensland Press.