

2003 AGM - Information forum part 2

Transcript of 2003 AWI Annual General Meeting

Information forum - Dr Paul Swan - Wool Production

Paul Swan:

Good morning, ladies and gentlemen. It's with great pleasure that I present to you the progress we've made in the on-farm portfolio over the past 12 months. In the on-farm portfolio our intention is to deliver a 10% to 20% reduction in the unit cost of production of your fibre. If we think about this for a moment, that is a fairly substantial challenge.

To go anywhere towards achieving that, a great proportion of you will need to adopt technology or change practice to become more profitable. To be able to do that, AWI and the investments that we manage have to deliver practical, relevant technology in the on-farm environment. That is our challenge and I hope through this presentation you get a feel for the approach that we have taken for the fact that we are trying to put in place long-term solutions that deliver changes in profitability.

The sorts of targets that we have set include more reliably productive grazing systems, more efficient, healthy and genetically progressive sheep, better synergy between sheep, meat and cropping activities, recognising that so many wool producers around the country do more than just grow wool.

The portfolio is 109 projects strong; representing \$49 million of yours invested arising from a \$25 million annual budget. Before I get into the detail of the specific program areas I'd like to focus on the achievements of the past 12 months and there's been a very hectic 12 months and we're very proud of the achievements that we have made.

Firstly, in August we announced the launch of a \$30 million co-investment between AWI and MLA on the national sheep molecular genetics program. This is all about developing the next generation of tools - smart breeding tools for genetics - the sort of technologies we'll be pulling out of the cupboard to apply in five to ten years time.

We've made enormous progress in developing painless, humane alternatives to mulesing and in particular we're excited by the human applications that we are starting to explore. There'll be human implications; the cosmetic applications of this technology outside our industry. Just recently we have completed negotiations - 18 months of negotiations - and established the Australian sheep genetics database. I'll talk about this some more later in my presentation.

The sustainable grazing lands program was launched nationally this year. Our target is 60 sites in Western Australia, I believe. The program was piloted here in the west, so it's a very major initiative.

This year we've launched the shearer/shedhand pilot program, shearer/shedhand training. After a long gestation, AWI is investing your funds in addressing a fundamental problem threat to your viability. We've also launched the national integrated parasite management program this year by a network of 25 demonstration sites around the country, where producers and the researchers will get together to development and demonstrate best practice in the various regional environments.

And finally, we opened the books this year to the umpires - independent external economists went through our investment portfolio. They chose at random one in every two of the projects in the on-farm portfolio and subjected them to a standard assessment. The results are that they would predict a \$4.50 benefit accruing to you over the next 20 years for every \$1 you've invested. We're quite proud of that achievement.

We can now turn to the specific areas within the program, and firstly genetics. Our intention in this area is to lay the foundations for the next decades of progress. Genetics is a very key profit driver. There is enormous potential, and with untapped potential in the merino for genetic progress and there's an enormous desire around the country to actually see that potential realised. The best thing of all is most of this potential can be realised on your property for very little investment. So, we're pretty pleased with the potential that genetics represents for your profitability.

This year we signed off, we launched a \$25 million investment strategy over the next five years. Key aspects of the strategy are for the first time in the wool industry, there is a whole sheep strategy, not just wool-specific genetics research. We are adopting a whole sheep research program. There is a co-investment focus. We are actively negotiating with, working with co-investors to leverage your investors with theirs to minimise the risks and maximise the likelihood we can get products to market quickly.

There are two major strands to this program. Firstly, applied genetics, which in a sense is the more conventional or more current genetics. It's an \$8 million investment. \$17 million is being put towards molecular genetics, which is the sort of DNA-based technology, which is revolutionising human medicine.

Let's focus just on molecular genetics firstly. Here we're talking about practical tools for progress, which are impacting in the short to medium term. Some of the key elements in the program are a focus on better benchmarks. AWI is not prescriptive about how though shalt breed thy sheep but if everyone is able to openly, transparently, and efficiently compare their sheep, it is a way to make genetic progress. Again a whole sheep focus in our benchmarking.

Research to define market segments: recognising that such a diverse range of environments, micron bands, sheep type and textile markets that we supply. We're investing to try and address language barriers, the sorts of things that have led to a lot of bitter debate in genetics in the past decade, as a way to gather some collective energy and move forward.

One of the flagship programs is going to be the Australian sheep genetics database. This is a co-investment. We are working jointly with, equally splitting the costs of this, with MLA. It is going to be an industry service, a genetic hub if you like, aiming to link up breeders, commercial producers around the country. And importantly, it will be a major catalyst for not only genetic progress but also a major catalyst for R & D. There'll be major spin-off benefits for the research community.

If we turn to molecular genetics, these are the sharp tools that we intend to generate for the next decades of progress. Again a collaborative program - \$15 million of AWI's has been invested. It's being matched by \$15 million of MLA's and attracted \$20 million from other co-investors. It's taken us about two years to develop this program. Some major outcomes that you should expect to impact on your business: gene markers for key traits, especially those that are hard to measure now or difficult or onerous to measure now; fecundity: number of lambs weaned per ewe join; the faecal egg or the parasite resistance traits, etc; and high muscle area.

Practical low cost pedigree is a major target of ours. We recognise that short and long-term pedigreing will be an absolute catalyst for progress and any of those of you who are going through the time and expense and difficulty of manually mothering-up, you will know what impact it has on the rate of progress you make. But the thing about these tools is they are compatible with existing systems. Whether you choose to supply the northern Italian fine worsted market or any other market, the technology will be equally applicable to you.

Turning now to what will drive or allow the genetics to express themselves - pastures. AWI is a major investor in plant breeding in this country. Around 40 of the commercially available legumes and some of the ones coming through the pipeline near to commercialisation arise from your investments. Some examples are multiple varieties of clover, some of the yellow serradellas, the hard-seeded varieties that are coming through now that are looking very exciting for things like those deep acid sands you have over here. Barrel medics coming through the pipeline. And there's a lot more to come: the lotus, melilotus, new phalaris lines, and in addition we're a major investor in the national rhizobium program. Again this is going to be generating material which will change the future production environment. We believe that therein lies the solutions or some major tools for addressing long-term problems like salinity or soil acidity, control of the water table.

But it's not just enough to develop smart new germ plasm. We also have to develop very effective management tools to get the best out of these new technologies and AWI is also investing in a major way in productive pasture management systems, for example biological control of weeds. Since 1996 Australian woolgrowers have been investing in developing biological control systems for Patterson's Curse, thistles, a range of weeds. These are, in effect, bugs that eat the weeds. The programme is running about two years ahead of schedule and this year we've initiated a national distribution phase of the programme, so we've moved on from pilot sites to national distribution and, judging by the amount of Paterson's Curse in the eastern states this year - it can't come sooner.

Timerite? - many of you in the west would be familiar with Timerite. It's actually originated over here or its first commercial application was over here through [The] Kondinin [Group]. Timerite is a mechanism for predicting dates, the optimum dates for spraying for red-legged earthmite control. Economic analysis says of this that this simple technology is worth about \$49 per hectare for applicants - very simple technology, very transparent, very useful, very profitable. We've mentioned earlier the sustainable grazing on saline lands network and again practical solutions for managing how pasture environments, in this case the saline salting environments, that were better forecast in Australia to be such a large proportion of our land area.

The flagship program we're investing in, along with Agriculture WA and DPI in Victoria, is a lifetime wool program - a major investment on your behalf's, \$6.4 million, in fact. Very exciting results: practical tools will arise to help you optimise the nutrition of the ewe to optimise the income from the lamb.

We initiated this year, along with GRDC and MLA, a national soil biology program. This is if you like the blue sky or the fundamental part of the program. We're trying to understand the characteristics of the bugs of the soil and how they impact on pasture productivity and the early results - certainly from the grains trials - are looking extremely exciting.

We're also working with CSIRO here in WA on predicting pasture growth rates. Many of you are well aware of the technology for monitoring pasture growth rates from space - the Pastures from Space program. Our investment is to here, aiming to try and supplement those tools with a predicted capability, so you can predict in advance with some degree of certainty the sorts of pasture growth rates you'll have to manage instead of just monitoring what was in your paddock five to ten days ago.

If we turn to health, a critical area coming straight from your bottom line: our intent is to substantially reduce the cost to you of the sheep health problems you face and the risks to Australia of exotic disease threats with 20 active projects at the moment representing a \$15 million investment. Some examples: we initiated two years ago a global search for new active chemical compounds which can address or replace some of our current compounds like the mectins which, as you know, internal parasites are becoming very resistant to. Through this process we've identified two compounds with pharmaceutical companies who don't specialise in sheep. But the compounds can be applied to sheep to control parasites so we are negotiating with them to explore an option of possibly, depending on the economic arguments I guess and the practicality, bringing these tools to the industry, because otherwise they're not going to come here.

Mulesing replacement. As I mentioned earlier, we've made a lot of progress in developing a painless replacement for mulesing. The two technologies we've invested in - and one in particular where you apply a chemical to the backside of the sheep, the hair falls out and the skin, from the latest trial results, contracts - very exciting technology with human implications.

An anti-protozoal vaccine. This is a major investment we initiated last year and I'm pleased to see Dr Andre Dennis White here in the audience from CSIRO Livestock Industries. In this case we are seeking to engineer the bugs that live in the gut of the sheep. The laboratory results suggest that through taking out the protozoa, which I guess you could describe as like the hyenas of the rumen, if you take them out then that result is a much greater increase or a great increase in efficiency, by which they convert every kilogram of food to muscle, bone or wool. In addition, a spin-off benefit is that they produce less greenhouse gases.

Another element is footrot eradication. In WA you've had an active program to eradicate footrot. AWI has addressed a short-term funding shortfall in that program. They were working with WA and every other state in the country to develop a national eradication program plan as a way that we can work together to address this problem.

We're also investing in development of novel dog and fox baits. In many parts of Australia, particularly Queensland and along the Great Divide, predation of sheep by wild dogs, dingoes and foxes and so on is a major issue, [with] some flocks reporting 30% of their mortality is due to these predators. Well, 1080, as you know, is under review at the moment and it's banned in the [United] States. AWI made a strategic decision to invest in developing next generation baits. We have proof of concept for two baits. They are dog specific so they target what you might call Achilles' heels in the metabolism of dogs and they're humane. The 1080 is a very unpleasant death and I guess we're all concerned, but we're very excited by this program and it's, as I say, a strategic investment on your behalf.

Finally, wool harvesting and measurement. Our intent here is to ensure that wool is more efficiently harvested and traded. There are major threats to your long-term viability in the form of harvesting: access to shearers; the standard of shearing training; OH&S threats and claims; the cost of replacing sheds; and so on. Some of the things we've initiated include, amongst the 29 projects and \$15 million that we've invested, ShearExpress. The photo you can see there is taken looking down the ShearExpress production line. This was taken at the field trials in Bendigo in Victoria. We're not just relying on that as the saviour; we're also actively exploring other forms of harvesting technology which can be usefully applied and there are numerous inventions, clever ideas that wool producers around the country have had, and so we are looking actively to see if we can identify the most likely and how we can bring them to the market.

In the area of dark and medullated fibre, and this is an issue which threatens or jeopardises our international reputation as a supplier of a premium fibre to wool processors. It is one of the number one issues that we hear about from our processing partners. AWI's approach in controlling dark and medullated fibre, or at least in providing tools to the industry, is twofold. We are working with AWTA and industry bodies to develop a pre-sale vendor declaration backed up by objective measurements. But longer-term we're also spending about \$1.14

million developing low-cost automated pre-sale measurement technology for dark and medullated fibre; four competitive technologies, nine organisations competing and collaborating to develop the next technology.

I'm sure many of you are aware of the OVDA machine here in the west - the on-farm fibre measurement systems. AWI has had a very active program in this area for two years. Of about the 15 projects that we've funded in this area one is a national quality assurance scheme, so that you can have to confidence to select people who you know are calibrated with an international standard and are calibrated against each other, so there are no such differences between individual suppliers perhaps and a national program, which is integrated with the QA scheme.

We've also been working hard in the area of sheep and bale identification systems. We've just completed - we're awaiting the final report - the bale identification approach, where we have come up with a system, which gets tags on bales to the [several inaudible words] overseas and to their mills. It's forecast to lead to cost savings, mainly to our brokers and exporters, but we're also looking harder to sheep applications of the technology, working with the Sheep CRC in this area.

To conclude, ladies and gentlemen, investments are all about the future. AWI is very confident that we've laid the foundations in our investment program in the on-farm area for future profitability. Our focus, as I mentioned at the outset, is on practical, relevant, low cost solutions to the problems that you face. Otherwise, we are not going to achieve the changes we need to achieve.

These include greater pasture productivity, sharper genetic tools, increased fibre quality, greater ease of management, solutions for wool harvesting. From our perspective there is certainly much to be proud of from the investments you've made and certainly much to look forward to in the future. Thank you very much.

Kevin Bell:

Thank you very much, Paul. I found that really interesting and I hope everyone here did too. In the pack you will have copies of Paul and the other speakers' overheads, so please - obviously, there's a lot to get our minds around, but you've got it to refresh your mind there.

If anyone's got any questions or comments, it would be great to have them now and I'm sure Paul would be more than happy to address them. There's one over here. Thank you.

Question from the floor:

George Ward from New South Wales. You mentioned a chemical there on the breech of the sheep, but the hair would fall out. How about the wool? You said hair.

Paul Swan:

Sorry, I was being an academic. They mean the same thing in that instance. The wool fibres fall out. The chemical is applied to the wool-bearing skin in that area around the breech.

Question from the floor:

Thank you. Now, a second question: what are you doing about improving the shearing handpiece? In other words, getting a new shearing handpiece, please?

Paul Swan:

That's an important question. AWI has had for two years an investment in final development or further development pre-commercialisation for the rotary handpiece, the Parke Rotar Shear. Unfortunately, recently the company went into liquidation. The inventor died and over the next months with family issues the company fell over. It was a family business. We're not stopping there; AWI has purchased the IP. We have an active program in exploring every other option for handpiece technology, including things that relate to the fork, the combs and cutters, new metal treatments for the combs and cutters, new drive mechanisms, and so on.

So, we've got a fairly active program going there. We've got an expert advisory panel including growers who, for the last three months, have been scouring Australia for new technologies and it's - the AWI Board has made it very, very clear this is an area where they are determined to see positive results, so we're working pretty hard in that area.

Comment from the floor:

Thank you very much and I'd like to congratulate you on the presentation in your paper.

Paul Swan:

Thank you.

Kevin Bell:

Thank you.

Question from the floor:

Max Watts, wool producer, WA. Well, mine's more of a general question in that, with the projects - and it could really be Len Stephens might even prefer to handle it or you can, anyway - can you just state the format on how projects are put up and who scrutinises those and the milestones whether they're getting up to speed?

And the other question would be the GRDC model, whether a percentage of the funds that are raised in a particular area is spent back in that particular southern, western, eastern region or whatever? I just wonder if you could expand on that, please.

Paul Swan:

Okay, well, I'll handle the first issue first and I may not answer or justify GRDC's structure. I'll just talk about what AWI's doing to start with. In terms of the process of receiving proposals or initiating new investments we normally have two approaches. There is what you call an anonymous approach where people have, like yourself, have ideas, they go to our website, they download a concept proposal form and in a lot of cases they ring us up first or send us a letter first. They fill out a concept proposal form and thereafter they're, in effect, in our systems treated as a client. Their inquiries are registered and recorded.

The proposal or the concept is assessed in relation to our strategic plan, which all of you should have and certainly our researchers have - our research suppliers have. We make a decision to reject the concept if we don't feel it meets our criteria that we are looking for as defined in our strategies or it has no commercial potential. Or, if we choose to accept this proposal, it goes to a next phase, which we call project proposal - far more detailed. They have to specify milestones, the administrative, technical, commercial, IP management. They have to define for us how this technology will impact on growers' benefits, because those proposals are subject to a detailed economic analysis model that we use. There are two, in fact: a net present value generator and an overall project scorer, called Innovar.

[several inaudible words] the general manager for the area, the CEO of the company has a look. We also have initiated a process, now that Len Stephens has joined the company, of a full program of management meetings where new concepts and projects are subject to peer review amongst the various staff of the company and it's a pretty powerful process, particularly if you're unprepared.

There's another approach, which is where we, on the basis of our strategies, call for projects. We've identified a gap and we're looking in our strategies, so let's say in animal health. We've had on our website for two years or close to two years an animal health strategy, which identifies what we think the critical gaps are when funding animal health research for wool production enterprises in Australia. In the on-farm area about 1.3 of the projects we fund go through this pathway for every one that we fund that comes through the other pathway, because we reject eight concept proposals for every one that we fund. So, it's a pretty rigorous process. I think in the last two years we've had over 800 applications for funding. As I say, we have our two major models, but at the end of the day they all have to be signed off by myself in the on-farm area and my staff. They get scrutiny, there's peer review, they go to a CEO and they go to a Board. So, there are a number of checks and balances in the process.

In relation to GRDC system of regional research programs, I feel it's better you address that to GRDC. We don't have that system but GRDC does and that's where I guess I'll leave it, thanks.

Comment from the floor:

Right. Thanks Paul, and well done on your work that you've got underway already. Thank you.

Paul Swan:

Thanks.

Kevin Bell:

Do we have any more questions? If not, but I think we do. Yes, please.

Question from the floor:

Thanks, Chairman. Andrew McNeil, woolgrower. The question of bale identification's quite an important one and I see you've done some work on a tag which is now apparently acceptable through the chain. Can we, as woolgrowers who as I understand it have largely paid for the cost of developing this tag, be assured that we're not going to pay more for a woolpack, whereas those who benefit from it should be then raised a buyers' delivery charge at a later date?

Paul Swan:

Indeed a good question. AWI has gone through a fairly detailed process to get to the point where we're prepared to recommend to the industry a way forward here. You are currently investing about \$1.3 million per year through the charges when you sell wool on a bale label. It's applied to all labels. It's got a barcode on it. There will be substantial cost savings if we bring in an alternate arrangement which is based around something that actually looks like a - I don't have one with me - it's something a bit like a credit card. It's flexible; it'll fit in a coloured nylon pack or flap on the surface of the bale.

With all these things they're volume-dependent and the current estimates are that the tags that we're talking about are in the vicinity of \$1.30 to \$1.80 per tag. But, as I say, the report that we are hopefully going to receive this week will be provided to the industry. We'll have an expert panel. It'll be accessible from our website, so we'll hopefully get an informed debate about whether the industry should go down this pathway before we commit to it. But we see that as our role: to stimulate the discussion, not to dictate the outcome.

Paul Swan:

Thanks, Paul. We've got time for one more question to Paul and obviously Paul will be around for the day. But there is time for one more question. Over here, thank you.

Question from the floor:

Yes, Paul. You've mentioned before about early lice detection but could you elaborate on that point?

Paul Swan:

Sure. Thanks, Malcolm. I did actually mention in the presentation today that AWI has an active program going with CSIRO Livestock Industries and NSW Agriculture. It's called final commercialisation of a lice detection test and it's basically a test which is designed on farm to allow you to detect whether your sheep have lice because it

turns out I think about 70% of our flock every year is exposed to an ectoparasiticide, like a louse treatment, Clip or whatever people put on their sheep.

But it would appear from the data only about 20% or 25% of flocks actually are infested with lice, so there's a very large investment each year, what you might call insurance, with people who are not sure they've got lice. They probably don't have it, but they're still going to apply a chemical. This technology will allow you to detect with fairly high precision whether your sheep are carrying lice. But I guess it's one element of a solution. It'll be a technology applied on farm in the shed but we're also looking at the genetics of lice. We're also looking at novel chemical controls for lice. We've got a fairly major investment program going, with MLA again, in external parasites. So, that's what you'd call near-to-market technology. We're also looking at other approaches longer term because with all these things there's an element of commercial risk and investment risk, so we don't want to have all our eggs just in that basket.

Kevin Bell:

Thanks, Paul. Our time's up for questions to Paul. Look, you probably have got more for him because I know it's an area that we're all familiar with but, please, I'm sure you'll be able to chat to people later on in the morning, Paul. Thank you very much. That was great.

Paul Swan:

Thank you.