
# *AGRICULTURE AND ENVIRONMENT COMMITTEE*

**Members present:**

Mr JP Kelly MP (Chair)
Mrs J Gilbert MP
Mr R Katter MP
Mr JE Madden MP
Mr LL Millar MP
Mr PT Weir MP

**Staff present:**

Mr R Hansen (Committee Secretary)
Ms S Stephen (Assistant Committee Secretary)

## PUBLIC BRIEFING—INQUIRY INTO THE IMPACTS OF INVASIVE PLANTS (WEEDS) AND THEIR CONTROL IN QUEENSLAND

### TRANSCRIPT OF PROCEEDINGS

**WEDNESDAY, 10 MAY 2017**

**Brisbane**

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**Committee met at 11.24 am**

**CHAIR:** Welcome, ladies and gentlemen. I declare the Agriculture and Environment Committee's public briefing open. I would like to start by acknowledging the traditional owners of the land on which we are meeting today. I am Joe Kelly, the committee chair and member for Greenslopes. With me today are: the deputy chair and member for Condamine, Mr Pat Weir; Mrs Julieanne Gilbert, the member for Mackay; Mr Robbie Katter, the member for Mount Isa; Mr Jim Madden, the member for Ipswich West; and Mr Lachlan Millar, the member for Gregory.

The purpose of this meeting is to assist the committee in our investigation of the impacts of invasive weeds and their control in Queensland. Hansard is making a transcript of proceedings which we intend to make available on our website. Those here today should note that the media may be present so it is possible that you will be filmed or photographed.

## ROBERTSON, Dr John, General Manager, Invasive Plants and Animals, Biosecurity Queensland, Department of Agriculture and Fisheries

**CHAIR:** I notice that you have a presentation you want to take us through, so we will go through that and then we will open the floor to questions.

**Dr Robertson:** I want to give you an overview of weeds in general—what weeds are and how they come to cause such a problem—and then I will give you an overview of how we consider weeds in general. Weeds are a significant issue for Queensland. Around 15 per cent of the total flora is not native. A lot of them have come in, as you are probably fully aware, over a couple of hundred years, either as a result of trying to improve pastures or as escapees from ornamentals or gardens. The cost to Australia is estimated at around $4 million, but we have seen a significant understanding of how you tackle weeds over the last few decades, and I think that is a really important to thing for understanding where we are at today. This is considered at the national, state and local levels, so there are national approaches to weeds, particular weeds in general or weeds under strategic plans. There is the development of national competencies towards how you control weeds, there are weeds of such national significance and there are also a number of national and state funding initiatives.

With regard to the sharing of responsibility, it is acknowledged that we cannot do this by ourselves. Under the Biosecurity Act 2014 there is a general biosecurity obligation, or GBO, which requires everyone to do their bit to minimise the biosecurity risk. The biosecurity risk is based on risk—that is how you determine what the appropriate action might be—and also that the creators of that responsibility share that risk. The delivery of many of the programs is done in consultation or partnership with stakeholders across Queensland. The general biosecurity obligation is very much that a person who deals with a biosecurity matter or is a carrier of it ought to know the biosecurity risk that they pose, and they should take those reasonable measures to minimise that risk to prevent spread.

If we can go on to what really makes a weed, I think this is important because it is fundamental how weeds differ from pest animals, for example. They have many seeds, and that is an issue. They can spread quite easily. They can remain dormant and viable in the soil for many years. I have just come back from Mackay, where we were discussing red witchweed with local canegrowers. There you have a weed where the seed does not become active for at least two years, so it is sitting in the ground and it is not even ready yet for germination. You have these complex factors that come into it. They are just waiting for the right conditions for mass germination. What you see in many weeds, and pest animals as well, is that they seem to go along at low levels and then suddenly, with the right conditions, you get a massive explosion.

The impact of the weeds on the environment in the first place is that they do displace native plants, as we know. They can be toxic or, as we have seen in GRT, they are just not palatable. They are too hard for cattle to consume. They modify habitat. Prickly acacia is a beauty for that; it changes the whole landscape. They lead to the sort of cascading ecosystem change where you get a whole change of biodiversity and the make-up of those ecosystems.

In relation to their impact on the economy, they do dominate pastures. We have seen that with a whole number of things and particularly the grasses. They can take over whole pastures and spread so quickly that it becomes difficult to instigate any short-term control measures. They do increase production costs, as we know. Every farmer probably has a substantial budget for weeds. If you add it all up it is really significant, and of course they reduce the carrying capacity of the farms themselves.

They do have an impact on human health and social amenity. Many weeds have allergenic effects, as we have seen with even ornamentals that may occur in gardens. For example, you cannot walk into a greenhouse of parthenium without many people reacting to it because it is so overpowering. Of course that increases the management of weeds and other things such as reduced access to public spaces, and national parks are a classic example of that.

Most often weeds fall close to the parent. Even with GRT we are seeing that most of the seed falls close to the parent, but in the right conditions animals, wind or water disperse them over large areas. We also have human assisted dispersal, with pot plants for example, which go all over the place. Small market gardens or markets where we see garden plants, some of them are banned but people do not realise that. When we see them for sale, we have to pick that up every time we find out about it.

I was going to quickly go into some of the case studies, but I think I will leave that because the committee is quite aware of how those spread and I think we have heard a lot about that. We will hear more about prickly acacia when we get up there in a couple of weeks. I thought I would go to where generalised invasion occurred. This probably gives the context of how we manage weeds, so it gives you a model. This is now fairly well accepted across the nation and in other places as to how we deal with pests in general and weeds in particular.

There is what we call a biosecurity continuum, so it goes from how you conduct prevention to asset protection. The roles of both government and other stakeholders are usually considered in that. We go from where invasive species are absent, so you are trying to prevent them from even coming in, or if they do come in you quickly eradicate them. You then go to containment, where you know they are here. They are difficult to deal with. You are trying to contain them, and hopefully over time you try to move that to the left towards eradication. Then there is asset based protection. Assets may well be such things as farming land or national parks. Whatever asset has the value, you try and do that. There are different strategies that you might apply across each of those. As we have seen with GRT, for example, you might apply all of those but in different areas.

Prevention is really turning off that tap. We work in that space quite a lot, particularly with the Commonwealth as well. If it comes in we quickly jump on it and hopefully prevent it or, if it comes cross-border, have detection mechanisms in place to stop it in its tracks and get rid of it. Eradication is really the eradication of things that are here. Red witchweed, which I saw yesterday, is a big program we have running up there. We also have ones for tropical weeds. There are five weeds in the tropical rainforests of North Queensland that have been a major issue in places like Hawaii which, if left to run, will just take over. It is really interesting: I was in Sri Lanka only about a month ago and they have just overrun that place. You think that is a pristine environment, but it is incredible when you see it out of control. There are some examples there of what we do.

We are in the containment space as well. There are a number of examples there where it is simply going to take years. You have some that are high priorities. You work out based on risk and cost-effectiveness that you can contain them and eventually hopefully you can get rid of them, so we have a number of programs there. With regard to asset protection and minimising loss—this is the prickly acacias of the world and the GRTs—it is a massive problem. You are trying to come up with strategies that work, but you know it is going to be a long-term strategy and you need to stay in there for the long run.

I consider that the roles of government and stakeholders probably change slightly throughout that whole continuum. I do think government needs to take the major role in at least the first three. Stakeholders get involved in all, as we are seeing in some of the eradication responses as well, but the major participation of stakeholders starts to come in at containment through to asset protection. Government cannot do it by itself; it needs everyone if we are going to tackle the job. We have seen a couple of those examples, and that is where everyone brings their best ability to the table and works together to do that.

As an example, we have the War on Western Weeds, which was started by a previous government, about prickly acacia. That brings our best researchers and biocontrol agents to the table. We are doing a lot of research with South Africa and other places, and it brings that to the table. It brings our herbicide control, our best methods of practice control and facilitation. Landholders get

involved and local government is right in there supporting it. Landholders innovate—a lot of that innovation can be done at the ground level and is captured—and work together to find a really good solution, and it has worked well in a whole number of facets.

Over time there have been legislative responses. Weeds have been there for a very long time under all the different acts that have occurred as we migrated through to the Biosecurity Act, so legislation has always been there. Sometimes we hear that the role of local government has changed and all of a sudden they have a greater responsibility under the Biosecurity Act. It is no different, really. The previous acts have always required local government involvement, and the responsibilities are largely the same. Through the act they have more flexibility and that might make it seem like they have more responsibility, but under their local laws, for example, they have the ability even more so than they probably did under the Land Protection Act.

With regard to the tools that are still there, I will not go into each of those but it gives you flexibility to do what you need to do. I think I will leave it there. I will flick through to biocontrol, which is a few slides on. These slides were simply to show that under that biosecurity continuum local government, for example, or any landholder or any level of government can apply those same things. I think I mentioned to the committee before that in Queensland we are quite lucky in that we have a science unit under Invasive Plants and Animals which excels at biocontrol. They have released a number of agents and are working on a whole number of them at the moment. It is only one of three in the country. It is probably one of the strongest ones in the country, and we see that as a core competency that we can apply to established species. Biocontrol does not work that well when you are in containment or prevention because you quickly have to use other options. Biocontrol is a longer term option, but it is really one in the toolbox that you can use for established species. Again, there has to be an integrated approach; it is not a silver bullet by any means.

**CHAIR:** Thank you, Dr Robertson. In the first two visits that we did and the public hearings that we held there was a great deal of discussion about the need to coordinate across both the public and the private sector. From the perspective of Biosecurity Queensland, how effective do you think coordination currently is and how could it be improved if it is not as effective as it should be?

**Dr Robertson:** If we are talking about the case studies, I think with GRT we have a great opportunity to be more coordinated. We are doing that with Gladstone with some of the science with some of the federal money that we have. We are doing more with the research and application. I think we have about 16 projects which we are rolling out with stakeholders. We know that is a bigger problem, and that is only in a couple of different areas. We know that we have a bigger geographic problem. I think we can get more effort in coordination there—like the prickly acacia model that we are doing—where everyone brings their capabilities together and we work together. We are working well in spots but not working well all together.

**CHAIR:** One of the issues the councils raised—particularly in South-East Queensland, where you have very heavily populated councils with big rate bases and neighbouring councils with much smaller rate bases—was the disparity around resources that they have to mobilise in relation to these. Do you see evidence of that, and do you have any thoughts on how we might address that?

**Dr Robertson:** I think some of those councils and local governments are really struggling, and I think the western ones are probably the ones that are really having a hard time. There are models like the RAPAD model, where they have joined together in a regional cooperative to come together and get much better integration and much better sharing coordination across those regions. I think in the first case there is a lot more effort that can be done. I have mentioned the co-investment model that we are rolling out with local government, which is very much based on a regional approach. I think we will get better clarity on priorities and probably better allocation, but also as a complement to that is better coordination. I think there is potential. As part of that co-investment model we are also looking at the methodology for how precepts are paid. That is reviewed every five to 10 years. It has come up as a really important thing to consider first up, so with LGAQ we have commissioned some consultants to really look at that, and they should be reporting quite soon.

**Mr MILLAR:** John, prickly acacia is a weed of significance in the area that I represent. What is Biosecurity Queensland's policy on prickly acacia? Is it eradication or is it management?

**Dr Robertson:** We consider it in a statewide context, and certainly in a statewide context it is containment as best as possible. We would put it in containment, but that does not preclude localised eradication. If there are efforts to do that around significant local assets, I think we should all be working towards that. DCQ, for example, has that as their approach—and good luck to them. We work with them quite a bit. We would like to have better integration with them. If there is a chance for localised eradication, that is fantastic. We see that in pests as well. Yellow crazy ant is another

example where localised eradication is being attempted. If it can be achieved, that is great. The issue you have is: once you have achieved eradication, how do you stop reinfestation when it still might be out there?

**Mr MILLAR:** Do you see that as a problem? Biosecurity Queensland is for management and DCQ is for eradication, so you both have a different philosophy on where this weed is.

**Dr Robertson:** No, I do not think it is a different philosophy. As we say, we consider eradication in a state and national approach. That is how the term is usually used in eradication responses and in cost-sharing between states and Commonwealth about how we undertake eradication programs. As I say, I have no issue at all with statewide and localised eradication; I think that is still achievable. As you are well aware, the issue with prickly acacia is how you prevent that from reinfesting and how you stop that spreading through cattle transport and other mechanisms.

**Mr MILLAR:** Eradication would be the key there; that is how you stop it. With management it is always going to be there, whereas I would think that eradication would be essential. We have prickly acacia right on the doorstep of the Channel Country now. If it gets through to the Channel Country that country is in big trouble; do you agree?

**Dr Robertson:** I would agree with you. The issue is really about the technical feasibility of achieving eradication. If it is technically feasible, yes. That does not mean that action should not be taken and action should not be looked at to eradicate. That does not preclude some sort of strategic approach to achieve eradication from areas and containment to a point where you might achieve total eradication. Is it technically feasible at this time? I would think it is not technically feasible to eradicate statewide.

**Mr MILLAR:** For the record, I think it is. I think we have to. If we do not pick up eradication as the main aim, then prickly acacia is going to enter the Channel Country and that will be devastating.

**Dr Robertson:** I agree.

**Mr MADDEN:** I know that Biosecurity Queensland has a great record with regard to how they acted with regard to Panama disease and how they are currently acting with regard to white spot. Maps have been shown to us which show that there has been an isolated finding of fireweed in Western Queensland. I know that you acted quickly with regard to white spot and Panama disease, but does your department have the same intensity of activity when it is brought to its attention that in an isolated part of Queensland a new weed has been found? If your answer is that there is a strategy, could you outline the strategy of what your department does when it is notified of an isolated outbreak of a weed in a new area?

**Dr Robertson:** For fireweed I do not think we have a strategy for new areas, mainly because it is a problem across a large area, mostly South-East Queensland. I think we deal with something like 40 weeds that are on the priority list, so it is simply a matter of having the resources to go and do some of those as opposed to ones that may well be posing a great risk as well. For example, we have eradication responses, as I mentioned before. We have a whole number of species where we are doing containment—hopefully to eradication—across Queensland. In that area in Western Queensland we have work going on with a number of species such as parthenium and other approaches to tackle it, and there is a lot of work going into cactus. The number of species of cactus that are out there that are causing some issues and spreading quite quickly is a problem, too. No, I do not think we have a strategy for fireweed in particular. Should we have? I think we probably do need a strategic approach, but I dare say that, given the amount of fireweed in the state, to be to the right of that curve we need to all be involved rather than simply ourselves involved. I think it requires a coordinated approach.

**Mr MADDEN:** The chart you put up is very good. You do have this opportunity for eradication, and at a certain point you lose that opportunity. I am thinking more in terms of localised areas rather than the entire state. I will use giant rat's-tail as an example. If we do not have GRT in the Mitchell grass country and we suddenly find that one property in the never-never of Western Queensland has it, I would have thought it would be advantageous for all of Queensland for action to be taken. It might be that we just make a decision as to whether it can be controlled and whether we provide money to the local council to undertake that work, but I think it is something that we need to look at. Particularly with the movement of fodder and the movement of stock, we are getting these isolated outbreaks of weeds and diseases like Panama disease and white spot. It is something that I am certainly concerned about, but it does appear that we do not have a strategy and it is something we should look at.

**Mr WEIR:** John, you talked about eradication. Has there ever been a case where a pest weed has been eradicated?

**Dr Robertson:** Where a pest weed has been eradicated?

**Mr MILLAR:** Canker?

**Dr Robertson:** That was a disease. We have a small example of bitou weed near the airport, but I do not think we probably have one great example of a total eradication of a weed.

**Mr WEIR:** We heard about biological advancements at Gatton. On your site it showed prickly pear. Cactoblastis did a great job but it did not eradicate it. It has maintained it and controlled it.

**Dr Robertson:** I think the answer, too, is that we have a lot of programs that are running on species that are really low abundance but we are never sure whether they are eradicated or not. We have cecropia in the north, we have bitou bush down here, we have *Mimosa pigra*, we have tropical soda apple. We have pretty much cleared them from areas, but the proof of freedom usually is five to 10 years. We cannot say confidently that they have been eradicated. Sometimes they occur in other states as well. Tropical soda apple is in New South Wales. We have been pretty good at keeping it in low densities in Queensland, but we cannot say we eradicated it. The other issue with weeds as opposed to pest animals, where you can say you might have eradicated them, is that in some cases you have a seed bank in the soil. Prickly acacia, for example, is up to 15 years in the soil. It might look bare to you, but if you get a good season all of a sudden you wonder where this has come from.

**Mr MILLAR:** Is Biosecurity Queensland concerned that we could have resistance issues with the chemicals we use to try and eradicate weeds? Are we moving to a situation where these weeds are finding resistance to the applications?

**Dr Robertson:** We have had some indications of resistance, but our strategy is always that you do not rely on one chemical. As we know, you can get Roundup resistance, but these days there are a lot of different options. If you apply those options in different ways or if you do not just stick to the one option—and we keep our fact sheets reasonably updated for the different options that are out there—I do not think we have seen too many problems with resistance. You simply move on to another chemical. The options are there.

**Mr KATTER:** With prickly acacia for example, if you get an outbreak then it becomes an alert and you get this slow encroachment of prickly acacia. How does that compare in terms of priority for you? If you get an outbreak of fireweed in Mackay, I would say that would be pretty concerning and you would want to get on it. How do you prioritise that in terms of resources when you have something that is existing and you have sort of thrown your hands up in the air and said, `This is way too big. What do we do about it?'

**Dr Robertson:** Prickly acacia is not just up in Central Queensland and northern Queensland; we have had it down here and we have had to move quickly to knock it over. With fireweed, I am not aware of that example so I cannot really comment. It is a phone call if you know about it. In relation to prickly acacia in the north, you have seen the charts: it is massive. This is nothing new, as you are fully aware. We have had programs running over the last 20 years for prickly acacia and they have not worked well, simply because it is such a big problem and we need better coordination between all of us. We all know that you can throw more money at it, but if you do not have the base coordination and base strategies together it is not going to achieve what it needs to. We have always focused on trying to keep the outliers in check, and that is the whole notion of containment. Your first step is really trying to knock those outliers out so they are not moving to other areas. Then you squeeze it in or hit strategic areas, like some of those big seeding areas. Prickly acacia is a hard one because you have this transfer through cattle, and where you get outbreaks it is a real issue in not knowing where they are going to turn up.

Through the Queensland Feral Pest Initiative we have had a number of funding initiatives, particularly in the northern gulf area, to try and knock out prickly acacia where it has turned up to try and keep those boundaries reasonably intact. It is a really difficult one, and we work with local government and NRM groups to try and get on top of that. Yes, it is difficult.

**CHAIR:** Dr Robertson, thank you very much for making yourself available again today. No doubt we will see you in a couple of weeks on our next trip. I declare this briefing closed.

**Committee adjourned at 11.57 am**