

To

The Research Director

Agriculture and Environment Committee

Parliament House

Brisbane Qld 4000

Email: aec@parliament.qld.gov.au

Submission: to the Inquiry into the impacts of invasive plants (weeds) and their control in Queensland.

Submitted by

Douglas Ian Silke (B. Eng)

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Monday 16th January 2017

Prickly acacia, giant rat's tail grass and fireweed example: From the perspective of "*managing whole regions*", it is inescapable and critical to first be doing everything possible so future similar weed species will not ever get a secure foothold in our continent. We do this simply because this work can deliver far more for the same input. There are naturalised weed species currently of very limited extent that are good candidates for near eradication in the Townsville near urban area, "*Albizzia lebbeck*" and "*Grewia asiatica*."

The only way environmental weeds can possibly be managed is for conservationists to first make sure future seriously weedy plant species cannot ever get a foothold in National Parks and on other government land. Eradication and prevention tasks carried out perhaps 100 or 1000 km away from the property boundary where the area infected is still tiny. This is work that equally protects primary producers from future weeds. This work is hard for property owners to do but easier for near urban conservationists like me. Removing "*declared weeds*" is vice versa easier for property owners than conservationists as there is no money to be made from removing declared weeds on government land and the job is impossible anyway. This can be a really good partnership. It is about time conservationists did their share of the heavy lifting on weed management.

I believe that such a broad "Weed Inquiry" should include consideration of potentially seriously weedy species that are not already listed in Schedules 1 & 2. Otherwise the apparent defects in the declared weed system and opportunities like that mentioned above cannot be discussed sensibly or dealt with.

There is another argument for including weeds not listed in Schedules 1 and 2. Various principles call for the Biosecurity Act 2014 to be "*less prescriptive*", "*Biosecurity Programs will allow local governments to be*

proactive in identifying and managing weeds" using a *"risk-based approach to biosecurity"* because *"this allows greater flexibility and more responsive approaches"* and the *"General Biosecurity Obligation."* Limiting to just schedule 1 and 2 weeds is totally prescriptive, removes almost all flexibility and removes any chance of a properly responsive approach

The critical investment in change that can make Queensland weed management much more effective is very different to the *"Declared Weed Approach"*¹. It involves **1. the eradication** or near eradication of potential new weeds that have so far only infected tiny areas. This type of work continues all the way through to **2. preventing** the arrival and establishment in the ground of even one single weed plant of potentially weedy plant species. This *"prevention and eradication"* needs more explanation.

Independent of Australia's quarantine measures, tens of thousands of native/exotic *"plant species already in Australia"*² can currently be planted anywhere throughout Australia legally, with only a handful of exceptions and without any safeguards. It is very well known that a proportion of these new arrivals to a region will be seriously weedy.

We need to be ready to **1. eradicate** new potentially seriously weedy species as they begin to establish.

Not all such new weeds can be eradicated or prevented. Eradication feasibility may depend on how far weeds have spread versus technical removal difficulties. The actual weediness can seldom be totally proven in advance until it is too late. It is about risk management. Yet this is where all seriously damaging weeds came from.

For more about *"eradication"* see the section: *"Eradication can be carried out in my local area"*

We need to quickly and roughly identify as many potentially serious weeds within the tens of thousands of *"plants already in Australia"* list as we can to **2. prevent new serious weeds, not already here, from being sold or introduced** into susceptible regions or to keep them under observation. This prevention work has to date been a disaster area. Why did we find such universal local opposition, most powerfully from the local conservation lobby, when we used the weed Gamba Grass for a decade as the example to attempt to get action on this *"Plants Already In Australia"* weed issue? Seed has now been sold and Gamba Grass has been widely distributed throughout North Queensland. Rachel McFadden, weed CRC head said, after the event, on the ABC rural report that it was *"scandalous that Gamba Grass had not been declared a weed throughout Queensland."*

¹ "Declared Weed Approach" concerns established weeds where every single plant cannot any longer be eradicated at

1. ² Most of the 33,300 permitted seed import list species can already be found within Australia either as part of the 15,800 Australian native plant species or within the 29,000 exotic plant species already in Australia. (so far of 29,000, 3300 have naturalised and 300 are seriously weedy) (Reasons for the weed risk assessment system, agriculture.gov.au, and "permitted seed list")
 - a. Australian Native Plants, outside their natural range but within Australia are just as potentially weedy as plant species from outside Australia.
2. With a positive *"weed risk assessment"* any other plant species in the world can be brought here. Perhaps 1% of these will be seriously weedy, and 0.1% of the serious weeds will likely pass the weed assessment test incorrectly.(agriculture.gov.au, development of weed risk assessment system, domestic and international evaluations)
3. plant material can be imported illegally

Conservationists, Landcare and all government departments at a local level refused to act to protect our region against Gamba Grass before it was too late. Next time they will do the same again. by the time the weed becomes familiar and after it is again too late to implement eradication, they will act. They will again be proudly pleased with their work and ignorant of the damage they have done to others. Over a decade, these groups paid no regard to the obvious facts on google about Gamba Grass, paid no regard that we got the advice about Gamba Grass from a previous head of National Parks/Fire Brigade in the Northern Territory, paid no regard that we were using the Gamba Grass example to highlight the need to protect against the weediness of tens of thousands of "Plants Already in Australia", paid no regard to the advice delivered personally from CSIRO's top pasture grass agronomist "that other pasture grasses were vastly better than Gamba Grass, and your neighbour would not want this grass."

The Burdekin has ninety listed weeds of significance and weeds cost that catchment ~\$140M/year so just stopping one new weed of significance can, over time, begin to save the Burdekin Catchment \$1M each year and every following year ongoing forever. ³ Gamba Grass is going to cost this region. Let us welcome change and stop the next few serious weeds.

Especially Urban Landcare like organisations need to be developed that adopt this "regional approach to weed management" in preference to the "property level declared weed approach" and tree planting.

For a "Property Level Approach to Weed Management" the "declared weed" management system is the only way. It very usefully and effectively slows the spread of weeds and is necessary to maintain the productivity of selected land parcels. But almost by definition all "declared weeds" are out of control (beyond any chance of eradication) so they cannot be stopped from spreading and they will inevitably all spread much further.

Governments facilitate this "declared weed" approach for weed management with property owners because facilitation returns big outcomes for their investment when landowner's contributions are included. But Government Departments are very reluctant to participate directly, because those at the top know, just like us, that there are other better more effective ways to invest in the management of weeds. Governments are investing very deeply in direct weed management in other areas like Quarantine.

For a "Regional Approach to Weed Management", the "Eradication/Prevention Approach" is always going to be orders of magnitude more effective than the "Declared Weed Approach." The critical distinction are the words "eradication from whole regions or states, the attempt to remove or almost remove every single plant of a weed species until no more work is required to be sure it is gone forever." Governments already invest directly in this approach and will in the future, as in the past, primarily invest in this approach. Government investment is narrowly focused and very limited. The Four Tropical Weeds

1. ³ Weeds cost \$1000 per square kilometre per year on average across the whole of Australia.
2. In other words, weeds cost \$140M per year just for the Burdekin Catchment.
3. Costs are distributed: 50% for primary production and 50% the environment.
4. The environmental savings are similar to the primary production savings. This was the very first matter recognised by the participants as they assembled to begin developing the first Australian Weed Strategy (personal communication). A comment to that effect was included executive summary of the second revision of that strategy. This comment was quantified in the executive summary of the third revision.

Government funded Eradication Program is the only Queensland example. These four-weed species are hopefully being eradicated.

Leading graziers, farmers and garden nursery industry business owners have very good knowledge and will readily understand and back what is discussed in this document, but they haven't and are unlikely to come up with the most appropriate "Regional Level Strategy" themselves.

Conservationists, Landcare and all government departments at a local level will simply refuse to believe the fact that "declared weeds", regardless, are invariably way out of control (even on the first day that they are declared). These people simply cannot accept that truly effective "regional level" weed management merely involves eradicating some completely unheard of potential new weed from tiny, near urban, area. This, and need for two very different yet necessary weed approaches, results in great confusion, difficulties and misunderstandings at all management levels that result in frustration, infighting and very disappointing weed management results. These listed groups will lobby and work tenaciously to stop effective "Regional Weed Management" practices from happening. They will funnel their time and all available resources into the more obvious "Declared Weed Management" especially often involving urban landscaping/urban historical natural asset park projects. This work may be very valuable, but has little to do with "Regional Level Weed Management" and promotes and advertises a "Regional Weed Strategy" that is almost totally defective. They completely misunderstand the meaning of words like "prevention" or "eradication" and convince themselves that they are already doing the "Regional Weed Job" when they are not.

The many City Council Pest and Weed Management Committee people I have dealt with cannot think flexibly outside the box and therefore will not do justice to "regional weed management."

How is it that a **quick whole of North Queensland authoritative potential weed species list for inclusion on a "Not for sale in Nurseries List"** could be prepared in just a few weeks while already the Garden and Nursery Industry have agreed to not sell any listed species. This can contribute towards preventing seriously weedy plant species emerging from amongst the tens of thousands of native and exotic "Plant Species Already In Australia." However, no Conservationists, Landcare nor any one of the government departments at a local level would even consider developing that list. Yet the same people somehow continue to castigate the Garden and Nursery Industry for introducing weeds.

- a. Despite the fact that 70% of all declared weeds were originally introduced as decorative garden plants. (Reasons for weed risk assessment system, agriculture.gov.au)
- b. Despite the equally important fact that no one ever makes even one dollar from selling these nursery plants. If a plant is unavailable a customer just purchases something else.
- c. Even though several of the top North Queensland weed experts contacted were immediately delighted to contribute towards such an initial, rough, uncontroversial "Not For Sale in Nurseries List" to get things going
- d. While endless numbers of regional meetings were attended including consultations with weed management committees, regional catchment committees, National Parks senior managers, councillors and conservationists
 - i. Yet none of the people at any of these meetings ever showed any understanding or began to show any interest in weed eradication/prevention principles, opportunities, facts and figures as listed in this document, or even budged in this direction (unlike leading Graziers and some of the public.)

- ii. It was however a breath of fresh air to talk with the local Garden and Nursery Industry business men and women. It took just one meeting with local nurserymen and one subsequent meeting with Don Scott, their Queensland Executive Manager, to reach agreement that the Nursery and Garden Industry would not sell any plant listed on a whole of North Queensland "not for sale in Nurseries" weed list within 12 months of a species being listed. Although very understandably deeply cynical the local nurserymen already knew more about several key but deep factual aspects of eradication/prevention than I did.
- iii. No-one else in our region remotely had any idea.

Plant Observations. As part of eradicating a potentially weedy new plant species, you must know the location of every single plant. Certainly, by the end of the weed eradication process, that is what is essential.

- e. So why is it that, by law, all weed and native plant observation data in the Local Government and DAF databases must be kept secret. How can we remove weeds when we do not know where they are? This is a patently ridiculous state of affairs - so what is going on?
 - i. As is almost to be expected there are same two necessary but very different approaches to be applied to weed observation management. "*Property Level Declared Weeds*" and "*Regional Level Eradication/Prevention Weeds*" Why do regional weed managers and officers have no knowledge about this and/or simply just get confused and merely apply blind religious zeal? With a tiny bit of flexibility, knowledge, and drive for real outcomes, these two sets of data do not conflict.
 - 1. Frankly "*Declared Weeds*" are always simply beyond control and can only be managed by the property owner, and if they want to protect the value of their own land by hiding weed observations while also encouraging the participation of property owners in weed management on their own property, then so be it. But only apply this to "*declared weed observations*."
 - 2. But "*regional level weed species*" that are candidates for "*Eradication/Prevention*" are weeds that no-one has ever heard of, whose removal benefits everyone in the region if not all property owners in Australia. So, everyone ought to be encouraged to help and contribute to remove these weeds that are tiny in extent and directly affecting only a miniscule number of property owners and only for the period until the weed species is eradicated.
 - a. Especially nearby property owners, but importantly also all that benefit from the work, absolutely must be aware of new occurrences of these weeds, if they want, immediately. Example: schedule 2 category 1 weed observations by law must be reported immediately. Every weed observation is worth its weight in gold but only if it is openly and readily advertised and quickly made available to those who can remove the weeds and can return to check the work later. Yet by law only the weed inspectors are advised, all observations then must be kept totally secret? How can urban Landcare have the information to discuss and realise priorities and become useful, when the required eradication information is banned from their hands.

3. Why are all observations, all the power, left solely in the hands of Council and DAF weed inspectors who have shown themselves to be totally committed to never working on any weeds that are not already listed in schedule 2, therefore never working on eradication, never working on "regional level weed management" (though they redefine the definition, and think they are doing that job)
- f. So why am I bullied by the local Council when I simply ring to advise the Weed Management Officer about an observation we found of this new weed to our region - Gamba Grass, only a handful of observations had previously been found at that time, that we had now found seeding on Council Property. We previously had also found the first occurrence of this weed in our region, also on Council Property, nearby.
 - i. Why is bullying the current situation: I am accused of an offence that should, I am told "be taken very seriously" i.e. apparently, the Council thought it useful somehow to assume that I had "stolen" Council's own weed observations and was going to made them public!!! So, immediately threatened me with legal action if I talked about our own observations.
 - ii. The council weed management officer saw the need to respond within an hour of eventually getting the correct and important information and on the spot removed the plants found.
 - iii. Is this the way to best support the good management of weeds... being bullied? It is a nightmare that new weed observations like this are hidden from view. These people must begin to think outside the box and demonstrate cooperative teamwork. Especially when the weed is a candidate for eradication or prevention. In any case, the Council has no legitimate reason to want to hide any weed observations on their land. Their land values will not be affected. Such observations should be publicised widely so as many people as possible can assist in reporting and managing an outbreak if they want before it spreads.

Eradication can be carried out in our local area only because there are suitable weed species to eradicate, just for starters: Albizzia lebeck and Grewia asiatica. It is not worth looking for other potentially weedy species until the nightmarish bureaucracy and committees show they have begun to make good decisions, by acting on these most obvious candidates. See where and how these species grow, obviously we have a problem.

When Albizzia lebeck and Grewia asiatica are properly examined and action commenced on these "eradication weeds," we can rapidly extend potentially serious weed lists in a way that is completely alien to the "declared weed method" because these "regional weed management eradication/prevention weed species" must be treated entirely differently.

Until Albizzia lebeck and Grewia asiatica are listed, just like Gamba Grass, anyone can openly and legally spread these two species, or equally any of the other tens of thousands of "found in Australia" native or exotic plants and spread seed far and wide with absolutely no safeguards at all. However once listed as potentially serious weeds, there are appropriately simple ways of removing plants from these weed lists when advantageous for use by graziers or anyone

- a. Others will attempt to ridicule the proposed weed species as if they were candidates for "declared weed" status, with uneducated political missiles like:
 - i. "but Albizzia is a native plant so obviously, it cannot be pronounced a weed.

- ii. "we might want to use the Albizzia for nitrogen fixing and drought supplement so it cannot be put on a weed list."
 - iii. "we cannot list Albizzia on a weed list because it is a significant part of our streetscape (because it most frequently grew readily where it was not planted) and our laws insist on the immediately removal of all "declared weeds" from the streetscape." More flexibility of local laws are required, these are not yet "declared weeds" they are "eradication weeds" and must be treated very differently. The very slowly (so it is practical for eradication) but densely spreading Albizzia that grows in a wide range of habitats does impressively decorate Townsville's streets where many trees can remain until they die out of old age without affecting eradication much.
- b. The potential weediness of a species is the only criteria for listing on "eradication weed lists." Again, the two approaches are totally different. Never can weed listing decisions for "Regional Level Weed Management" be made by the "declared weed" politically driven committees, "eradication weeds" are always almost completely unknown so political decisions will never ever include them. The type of people who make "declared weed decisions" are way out of their depth, but we are driven to protect from weeds and to get productivity
 - c. Be careful about needing thousands of people to do paperwork, there are books on the subject already, use existing research.
 - d. We do not design roads and bridges by community driven political committees, nor do we provide suburban electrical networks that way.
 - e. Political committees may operate quite well for "Declared Weeds" where the weeds first need to be very well known (notorious), and respected influential leading graziers will be very familiar with the graziers who have found the new problem. But by the time weeds have become notorious they have invariably spread way beyond any chance of eradication.

Nature Search, observation collection, publicity and advertising: Several years ago, the Weed CRC came into town as part of Nature Search, to, amongst other things, trial collecting plant observations. However they may have decided in Brisbane not to organise to remove any of the new weeds discovered. Regardless when we suggested perhaps we could assist locally with weed removal that they were not doing, why did these people refuse our offer?

It was for me quite astonishing, the regionally based same people and groups who had consistently rejected our quality weed management system that was already loaded with fantastic regional plant observation data, that we had been collecting and promoting for several years, the same people were persuaded to love this Weed CRC/Nature Search system (that would never achieve much) in a process that took about 30 seconds in a public meeting!!! Also, why were the Weed CRC/Nature Search people themselves so totally uninterested in consultations or in even glancing at our data, or in using our data? Why did they seem only angry that we thought what they were doing could be improved?

Perhaps they were running a trial with everything cast in cement from Brisbane?

We presumed correctly that Nature Search would be copious fluff and bubble for three years then would vanish rapidly with no provision for anything to continue and big doubts about it's value. We had been promoting a more expert based volunteer run observation collection centre like that at Ballarat, (that we had also been down there to research, connected to the Vic. Herbarium) that could still have been running today, 10 years later.

This "Nature Search" trial unfortunately ran over what we were doing locally like a freight train, and held everything up for 3 years, though perhaps for 20 years.

This example also highlights the white elephants that are so often built, perfectly good installations that cannot work because the other installations also required before anything functions, are not built.

Thinking outside the box can work... the necessary publicity and/or education that is required can be provided by ecotourism operators. Where others do the actual work, they do what they are very good at... providing the publicity. But then the government department has fewer people, and their staff will not be out there getting all the kudos. Further a quality intelligent job on weeds has to be done for this to work and the current system fails this test miserably. Other publicity can be generated by advertising on walking tracks/bike trails.

In eradication, there is a need to model the weeds eradicated to predict the density, extent, damage, savings and issues achieved and to publish the results.