### **Annotated timeline**

150 years of prickly acacia (*Vachellia nilotica* spp. *indica*) in Queensland

13 March 2017



This document has been compiled by Martin Hannan-Jones of Biosecurity Queensland, Department of Agriculture and Fisheries

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#### **Summary**

This annotated timeline was compiled from records held by the Department of Agriculture and Fisheries, newspaper articles accessed through the National Library of Australia digitized newspaper archive TROVE (<a href="http://trove.nla.gov.au/newspaper/">http://trove.nla.gov.au/newspaper/</a>) and reports and scientific papers prepared by staff of various Queensland Government departments.

Entries in the timeline have been colour coded as follows.

Year	Issue	Comments
XXXX	Local laws	Years in which local laws were introduced or significant amendments made.
XXXX	State legislation	Years in which state legislation was passed, commenced or significant amendments made.
XXXX	High rainfall years in Queensland	Expansion and densification of existing prickly acacia infestations and establishment of new infestations.
xxxx	Impacts	Years in which significant new or growing concerns were raised by community or industry about the actual or potential impacts of prickly acacia and calls for government assistance.
XXXX	R&D - Biological control research	Years in which significant research activity; advances occurred or hurdles were encountered.
XXXX	R&D - Herbicide control research	Years in which significant research activity; advances occurred or hurdles were encountered.
XXXX	R&D - Management strategy research	Years in which significant research activity; advances occurred or hurdles were encountered.
XXXX	Major Publication	A major publication about prickly acacia
XXXX	National and State strategies	Years in which significant National and State strategies were developed, released or revised.
XXXX	State control programs	Years in which significant State control programs were undertaken.
XXXX	Community based action	Years in which significant local community based action occurred or funding received to control prickly acacia.
XXXX	Mapping and survey	Years in which significant activity undertaken to survey or map prickly acacia in State or regionally.
xxxx	Promotion of prickly acacia - planting, use and utilization	Years in which significant promotion or proposals for utilization of prickly acacia occurred.

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## Timeline - 1803 to present

Year	Issue	Comments
1803	First mention of prickly acacia in Australia	Mimosa nilotica included in Governor King's list of plant seeds available in the Colony of New South Wales
1872	First record of widespread	Queensland Acclimatisation Society offers Acacia arabica to graziers via newspaper articles.
	distribution	Prickly acacia seedlings grown at Bowen Park, Herston, Brisbane from imported seed.
1875	Planting on Broadsound Islands	Prickly acacia and other useful plants planted on Masthead Island and Percy Island by Captain Bedwell at the request of the Queensland Acclimatisation Society.
1884	Seed importation	Queensland Acclimatisation Society receives seed from J. P. Williams and Bros., Ceylon
1885	Seed importation	Seed received from Mr Alfred England while travelling in India. Seed then offered in small amounts by <i>The Queenslander</i> newspaper to its readers.
1886	Seed importation	Queensland Acclimatisation Society receives seed from J. P. Williams and Bros., Ceylon
1894	Acacia arabica planted at Barcaldine	Prickly acacia planted at Barcaldine by Mr C.J. James, seed received from the Botanic Gardens in Sahranpur, Oude Province, India
1905	Distribution of seed from tree at Barcaldine	Locally grown seed available for distribution.
1909	Wangaratta Shire local law	Shire of Wangaratta declared African boxthorn and prickly acacia to be noxious weeds under Council by-laws.
1916	Prickly acacia growing problem near Bowen	Wangaratta Shire Council resolved that all <i>prickly acacia</i> ringbarked by the Council be also poisoned. Wangaratta Shire Council issues "Noxious weed notice" including prickly acacia in Bowen Independent (Qld.: 1911 - 1954), Tuesday 29 February 1916, page 2. (See Figure 1 below)
1919 to 1928	Distribution of seed from tree/s at Barcaldine	The distribution of prickly acacia seed was promoted by Mr C.J. James "The Acacias" Barcaldine in numerous "letters to the editor" in Queensland country newspapers. Mr James was also the editor of the newspaper <i>Western Champion</i> .
1923	Bowen Town Council	Prickly acacia was not a noxious weed in the Bowen town area.  The Wangaratta Shire Council wrote to Bowen Town Council, asking that prickly acacia be declared a 'noxious weed.  Alderman Kelsey in reply, said that Mr Anderson, Curator of the Botanical Gardens at Townsville, said it was one of the most valuable trees in Queensland. No action taken by the Bowen Town Council.  Bowen Town Council formally replied to Wangaratta Shire Council's letter stating that the Town Council does not consider it necessary to proclaim prickly acacia a noxious weed.
1924	Wangaratta Shire local law	Wangaratta Shire local law – It was moved by Cr Pott, "That the bylaw in regard to prickly acacia be enforced," Seconded by Cr Edgerton and carried.
1925	Oldest retained specimen in the Queensland Herbarium (BRI) collection.	Specimen (AQ0194271) was collected from near Lakes Creek, North Rockhampton. The collector's notes state "On each side of the river on the flats, and follows up the banks of little creeks. It appears to be well established even if it is not a native. The tree is growing quite freely in great number near Lakes Creek."
1926	Distribution of seed from trees at Bowen	Seed was available from the caretaker of the Bowen Showgrounds upon request.
1926	Promotion for use in sheep industry	Prickly acacia recommended as a shade and fodder tree for sheep production in western Queensland Mr N.AR Pollack, Northern Instructor in Agriculture publishes article in the <i>Queensland Agricultural Journal</i> 25: 336-7 recommending use in western Queensland but also highlights prickly acacia problems in coastal areas.
1929/30	Impacts - Problem around Bowen	Petition to Council and letters to the Minister for Agriculture and Stock stating that in 1928/29, expenditure by Wangaratta Shire on prickly acacia control was £1789/19/7 (\$136,438 in 2016 dollars). With petition was the report from Mr Pollack Northern Instructor in Agriculture setting out the disadvantages of permitting the plant to spread unchecked in the coastal areas, where its value for stock was practically negligible.

Year	Issue	Comments
1930	Impacts - Problem around Bowen	From minutes of the Bowen P. A. & M. Association meeting The Clerk, Wangaratta Shire Council, wrote stating the seedlings of the prickly acacia trees at the Showgrounds were not being kept down and no provision was being made to replace those trees with shade trees. Moved by Mr, Reye, seconded by Mr. Reye and carried, that the Shire Council be written to stating that an endeavour was being made to keep down the seedlings and members had offered to donate shade trees, which would be planted. Wangaratta Shire Council meeting Dec 1930 inwards correspondence from Bowen P. A. & M. Association stating that undergrowth and young prickly acacia trees were being kept in check at the showgrounds, and other shade trees would be planted.
1930/31	Local laws	Dispute between Wangaratta Shire Council and Bowen Town Council continues as to whether prickly acacia should be considered a noxious weed.
1931	Bowen Town Council	March 1931 From Home Secretary's Department, enclosing a letter from Mr. Charles Collins, M.L.A. quoting another letter asking for assistance in "conserving this valuable plant for the stockowners of the North." In reply, the Mayor said the resolution, declaring the prickly acacia a noxious weed had been passed but it had not been confirmed.  A motion, that the letter be replied to stating the Council were still in favour of declaring prickly acacia a noxious weed. The motion was carried by majority.  June 1931 From Home Secretary's Office, enclosing letter from Wangaratta Shire, Council requesting that the prickly acacia growing in the town area be eradicated, and asking that the Department expedite same.  The Mayor said a special meeting to confirm a by-law on the matter of eradicating the prickly acacia was required.  Ald. Massy gave a notice of motion that a special meeting he called to pass a resolution continuing the bylaw.  November 1931 From Home Secretary's Office, advising that a by-law of the town of Bowen, adding prickly acacia to the list of noxious weeds in the town, had been gazetted.
1937	Newspaper article supports use of prickly acacia	Newspaper article in Queensland Country Life Thursday 29 Jul 1937 "Ruthless destruction of Edible trees should be prohibited" by "SEE-'EM" supports use of prickly acacia.  "The northern districts are best suited by the propagation of prickly acacia, which grows readily anywhere on the open downs in the Hughenden, Richmond, Julia Creek, and Winton localities. It responds quickly to irrigation by bore water along the Flinders. The late Mr. Daley, of Poverty Point, and Mr. Thos. Forster, of Gracedale, made much headway in nursing it along the bore drains, principally for shade purposes. It must be protected from stock in its early stages."
1937	Prickly acacia an asset	At the monthly meeting Jan 1937, Bauhinia Shire councillors discussed "the prickly acacia considered by the council to be more an asset than a pest"
1938	Bowen Town Council meetings	August 1938 ACACIA NOT A NOXIOUS WEED. This (special) meeting was to consider a resolution, of which notice had been given by Ald. Michael: that the bylaw declaring Prickly Acacia a noxious weed be deleted. Ald. Michael stated that the Authority which had originated the bylaw had not enforced it, and large trees were allowed to nourish at the Showgrounds. Soon after it was declared a noxious weed, the authorities were collecting its seeds to send to drought areas in the west as food for stock. It was a useful tree, and although it bore many seeds, only 2½ p.c. of them could be expected to germinate, so that it did not spread very rapidly. The resolution was seconded by Ald. Bensted and carried. November 1938 Correspondence from the Home Secretary [to Town Council], advising that the Inspector of Diseases in Plants had been in Bowen and had been shown, around the areas affected by prickly acacia. He recommended that acacia be not deleted from the Council's list of noxious weeds. Response from Ald. Michael was to find "Who took him around?"

Year	Issue	Comments
		November 1938 From Town Council to Shire Council stating that an officer of the Dept. Agriculture and Stock is making a survey of the Town and Shire in regard to noxious weeds, and the Council's intentions in regard to Prickly Acacia will be made known after the Officer's report is received.
1942	Growing problem around Rockhampton	Rockhampton City Council meeting 4 November 1942 GARDENS CURATOR: Mr H. G. Simmons reported: "Maintenance has been attended to as far as possible in various parks during the past fortnight. Some attention has been paid to areas at North Rockhampton. With reference to the plant referred to as prickly acacia. Acacia arabica and Mimosa, which is said to be assuming pest pro-portions around Rockhampton and which has been suggested for listing as a noxious weed, the spread of this tree Is increasing and it has a tendency to increase rapidly. It is not, however, without merit. It makes a useful shade tree and it is also used as fodder in dry periods. It is prevalent over the roads and park areas around Kalka and at the lower end of the city. Any declaration of this plant as a noxious subject would mean a considerable expenditure of manpower and money, neither of which is available at present. Methods of dealing effectively with the excess spread of the plant might be investigated with a view to reducing the risk of damage to pastures, etc."
1944	Rockhampton City local law	Rockhampton City Council meeting 17 May 1944 ACACIA ARABICA The Curator (Mr H. G. Simmons reported: "Referring to the plant called variously Mimosa. Prickly Acacia, etc. which is Acacia Arabica, I beg to report: The plant which has been spreading in the district for several years is not without merit. It can be grown to a very fine shade tree without trouble and it has some value as stock feed when nothing else is available. At the same time owing to the rapidity with which it spreads and the troublesome prickles which it develops, its faults have come to outweigh its merits. It appears desirable, therefore, that it should be declared a noxious weed. This course will increase the power vested in certain authorities to control its eradication, but the size of the undertaking may be stressed. I am not in a position to make any definite recommendation as regards methods of dealing with it. It is quite certain that it can be poisoned. It can also be grubbed out. Some tests directed towards discovering the best method of dealing with it are required. I would suggest that the various serious suggestions - poisoning, grubbing, pulling out by power, ringbarking, etc., be properly tried out, with a view to discovering the most economical means of disposing of It."  On the recommendation of the general purposes committee, it was decided; that necessary action be taken to declare the plant a noxious weed within the city. The committee also reported that it had authorised experiments to be carried out with a view to the eradication of the plant from property under the council's control.  Rockhampton City Council meeting 31 May 1944  At a special meeting held prior to the ordinary meeting, the by-laws were amended to include in the schedule of noxious plants, prickly acacia ( <i>Acacia arabica</i> ).  Rockhampton City Council meeting 23 August 1944  PRICKLY ACACIA.  Advice was received from the Director of Local Government that approval had been given to the council's by-law declaring prickly acacia to be noxious.
1946	Fitzroy Shire Local Law	A motion by Cr Pierce that the council's solicitor to draft a by-law declaring "Acacia arabica" and "Acacia farnesiana" noxious weeds within the shire was carried.
1947	The debate continues	Newspaper article "Prickly problemby some it is held to offer salvation to the West. To others it presents disadvantages or dangers which diminish its merits to a vanishing point". The Plants of Western Central Queensland by H.G. Simmons, Curator Botanic Gardens Rockhampton published in the Morning Bulletin (Rockhampton, Qld.: 1878 - 1954), Wednesday 18 June 1947, page 12.

Year	Issue	Comments
1949	Impacts - Problem around Gumlu	Wangaratta Shire Council meeting July 1949
		Gumlu Progress Association drew attention to prevalence of China apple and prickly acacia in the Gumlu area. The
		Association was to be informed that owing to the scarcity of labour at present the Council cannot take action at this stage.
1950	The debate continues	Newspaper article "Tree Planting in Western Qld" Queensland Country Life Thurs 15 June 1950 page 14
1330	The debate continues	Mr H.G. Simmons Curator of Rockhampton Botanic Gardens, "The species becoming common in the West, known as
		prickly acacia, or at times, mimosa has merit,"
1950	High rainfall year	Expansion of infestations
1950	Herbicide control research	First Queensland Government sponsored experimental work undertaken on herbicide control measures.
		Trials of the herbicides 2,4,5-T and methoxone near Winton by Mr Jack Mann, Department of Public Lands.
1951	Annual Conference of the Central	PRICKLY ACACIA
	and Northern Graziers Association at	Other delegates emphasised the seriousness of the prickly acacia around Winton, which, It was stated, would in a very
	Longreach April 19 1951	short time be a worse pest than chinee apple.
		Mr. R. A. Thompson (Nelia) said they could not get cattle through the prickly acacia at Nonda, and the same applied to chinee apple. C.S.I.R.O. had very little information on mimosa bush.
		Mr. B. C. Carter (Richmond) said that prickly acacia was getting to such a stage that no hormone weedicide would be
		effective against it; eradication by bulldozers was the only way to deal with it.
		Mr. R. A. Thompson (Nelia) said that C.S.I.R.O. had suggested that Mr. A. P. Dodd, biological section of the Lands
		Department, should be contacted regarding mimosa bush, and Mr. Dodd had suggested that a grazier should send him
		samples of the bush, with seed pods attached, to enable experiments to be carried out. Arsenic would kill it, but it would
		be very costly; arsenic pentoxide also would do the job, but it was unprocurable.
1952	Public and Industry calls for state-	Government response - "Further consideration would be given to declaring prickly acacia a noxious plant under the
	wide noxious weed declaration	Stock Routes and Rural Lands Protection Acts when experimental work as complete." Morning Bulletin Wed 12 Mar 1952
1953	Herbicide control research	Herbicide trials near Rockhampton by Alan Taylor, Department of Public Lands
1955	Herbicide control research	aerial herbicide control trials near Winton undertaken by Mr J Mann from Department of Agriculture and Stock
1955	Herbicide control research	Problem on Barcaldine Town Common. Herbicide from State stores supplied to the Barcaldine Shire Council so that
		council staff could undertake trials.
1955	High rainfall year	Expansion of infestations
1956	High rainfall year	Expansion of infestations
1956	Herbicide control research	Successful trials of basal bark spraying and cut stump with 2,4,5-T in kerosene or distillate
1957	State legislation	Stock Routes and Rural Lands Protection Acts 1944-1951
		Declared a noxious plant by "Order in Council 7 March 1957" (published in Queensland Government Gazette 9.3.1957)  Declared as a noxious weed throughout the State as <i>Acacia arabica</i> . <i>Duty of landowners to keep holding free of</i>
		noxious weeds.
1957	Herbicide control research	Lands Department supplying 2, 4, 5-T Hormone preparation in 1 gallon tins @ £5.0.0 per gallon (This is approx. \$150 in
1007	Tierbiolae della or research	2016 dollars).
1957	General area of distribution	Inland - Winton, Longreach, Blackall, Ilfracombe, Barcaldine, Aramac, Flinders, Emerald, Peal Downs, Belyando,
		Bauhinia, Richmond, Cloncurry, Boulia Shires
		Coastal – Rockhampton Town Council, Fitzroy, Livingstone Wangaratta Shire Councils
1958	Herbicide control research	Arsenic pentoxide trials near Rockhampton

Year	Issue	Comments
1958/60	Herbicide control on stock routes in and around Winton	Reported expenditure (operating and labour) for herbicide control of prickly acacia on stock routes in and around Winton by Winton Shire  1957/58 £548.10.3 – Winton Shire  1958/59 £127.19.11 – Winton Shire  1959/60 £287.18.11 – Winton Shire  1960/61 £776.2.3 - – Winton Shire & Stock Routes Fund  Total £1740.11.6 (\$49,623.45 in 2016 dollars)
1963	Continued support for use in sheep production	Newspaper article Qld Country Life 23 May 1963 "Cr R.C.M. Davidson: It is spreading at home because we are encouraging it. It is wonderful help."
1963	Continued support for use in sheep production	Newspaper article Qld Country Life 13 June 1963 "Cr. R.S. Lord (McKinlay) said that instead of declaring the tree a pest it could have been confined to certain areas."
1973	High rainfall year	Expansion of infestations
1974	High rainfall year	Expansion of infestations
1979	R&D - Biological control research starts	Biocontrol agents sought that targeted the reproductive parts of the plant so not to affect the beneficial uses of existing prickly acacia trees for browse and shade by sheep producers.  Survey for potential agents in Pakistan undertaken under contract by A.I. Mohyuddin based at the CABI institute, Rawalpindi, Pakistan.
1979	R&D - Biological control research	Quarantine testing begins for Bruchidius sahlbergi from Pakistan. Oviposits in ripening seed pods
1982	R&D - Biological control research	Bruchidius sahlbergi released.  Between 1882 and 1985, 309,000 beetles were released across 96 sites in western Queensland. Well established in Queensland. Would be more effective if cattle were excluded from also feeding on the pods.
1983	R&D - Biological control research	Cuphodes profluens from Pakistan released. The larva is a small tip-feeding caterpillar. 3395 moths were released at 14 sites. Only established at one site near St. Lawrence which was later cleared. Considered to have failed.
1985	Infested area estimated as 6.5 million hectares	This estimate of the size of the infestation was determined by a mail survey questionnaire of landholders in 9 local government areas and extrapolated from the infested areas stated by the respondents.  Subsequent departmental advice refers to 7 million hectares as an estimated incremental increase.
1985	State legislation	Rural Lands Protection Act 1985 replaces the Stock Routes and Rural Lands Protection Act 1944  Prickly acacia listed as a noxious weed to be destroyed.
1985	Establishment of Tropical weeds Research Station Charters Towers	Conducting research into chemical control & providing mass rearing facilities for biological control agents.
1986/87	herbicide control trials	Trials undertaken by TWRC staff show that diuron gave excellent control of prickly acacia growing along bore drains.  The trial data was given to all relevant product manufacturers to facilitate registration.
1987	R&D - Biological control research	Survey for potential biological control agents in Kenya undertaken under contract by IAD Robertson.
1989-92	R&D - Biological control research	East African Field Station established at the Kenya Forestry Research Institute, Maguga, Kenya. Survey for potential biological control agents in Kenya undertaken by Ms Jennifer Marohasy (nee Turner), entomologist. 90 species of insect found attacking prickly acacia subspecies, however, only a small number suitable for further testing.
1989	Initial satellite mapping of distribution and spread of prickly acacia	Joint project UQ and Department of Lands.
1989	Richmond Field Day	<ul> <li>Initiated by Mr Graham Thompson, "Olive Downs" Maxwelton supported by staff of the Tropical Weeds Research Centre, Charters Towers of the Department of Lands.</li> <li>Attended by the members of the Rural Lands Protection Board</li> </ul>

Year	Issue	Comments
		Successful day leads to formation of the Richmond Land Care Group.
1989	Proposal to utilise prickly acacia	<ul> <li>To use it as woodchip for paper pulp. To be exported to Japan. 200,000 tonnes annually.</li> <li>"The prickly acacia would be machine harvested and taken to selected rail heads for processing through a mobile chipping facility." Quote of Mr Max Strong, Advanced Biotechnology Corporation, "Venture to give pest acacia the Big Chop" <i>The Courier Mail 8 Nov 1989</i>.</li> <li>Supported in the media by the then Minister of Northern and Regional Development Hon Mr Bob Katter.</li> <li>Permits issued to proponent to facilitate a feasibility study.</li> </ul>
1989	High rainfall year	Expansion of infestations
1990	Prickly Acacia Control Strategy	Adopted by the Rural Lands Protection Board February 1990.  2. Objectives 2.1 To contain prickly acacia in the P3 areas by enforcing eradication in all P2 areas. 2.2 To encourage control in the P3 areas by extension, followed by a program of strategic control and containment  P3 the area of infestation is to be reduced – the shires of Aramac, Flinders, McKinlay, Richmond & Bowen
1990-91	Proposal to utilise prickly acacia	P2 the plant must be destroyed – elsewhere in Queensland Intergovernmental Committee investigated issues relating to the proposal including:  • Whether the selling of the wood chip would contravene the Rural Lands Protection Act  • Royalties payable to the State under the Forestry Act 1959  • A requested exclusivity arrangement for the proponent  • Responsibility for control of regrowth after harvesting  • Preparation of guidelines
1990	High rainfall year	Expansion of infestations
1991	Cattleman's Union Richmond Branch	Ministerial (Lands, Primary Industries, Environment) correspondence from Cattleman's Union Richmond Branch – "that this Branch approach relevant Ministers for extensive rebates for expenditure on diesel poisons and labour for eradication of prickly acacia".  Earlier advice from the Rural Lands Protection Board (September 1990) was that subsidies should not be reintroduced.
1991	Community based action - Wokingham Landcare Group formed	The group was principally formed for the purpose of prickly acacia control on the nine participating properties (David Ogg).
1991	State survey project commences (NSCP)	Rural Land Protection Board staff commenced a control programme initially surveying the plants distribution. Funding for this joint three year \$250,000 project from the Commonwealth through the National Soil Conservation Programme with involvement of four Landcare Committees - Richmond, Flinders, Cloncurry and McKinlay, landholders and local authorities. In 1991/92 - \$102,000 Qld, \$76,000 Commonwealth.
1991	R&D - Biological control research	\$112,000 (state funds) allocated in 1991.
1991	Government agency coordination	Joint Lands/DPI workshop to coordinate approach to research and development and extension activities to land owners and industry participants to overcome perceived benefits of prickly acacia.
1992	Correspondence	Shire of Longreach resolved to write to the Minister of Land Management "drawing his attention to the recommendations in the 1960's that prickly acacia be grown as fodder and shade trees on bore drains" and "that the assistance be 50%".
1992	Local government resolution	The North Queensland Local Government Association conference adopted a resolution from Flinders Shire Council " That a request be made through the Minister for Lands for the State Government to provide at minimum cost the Herbicide "Garlon 600" or an equivalent product to landholders to ensure the effective control of prickly acacia in Queensland"

Year	Issue	Comments
1992	Strategic Control Initiative	Active destruction of prickly acacia within strategically important areas.
1992-95	Control technology research	Staff at the Tropical Weeds Research Centre conducting trials of using mechanical clearing of prickly acacia.
1993	Withdrawal of State funding from NSCP mapping project.	Only 65 of projected 150 properties were mapped and only a hand full of pro The withdrawal was a consequence of a departmental budget shortfall after restructure of staff and assets of Department of Lands, Land Protection Branch and Rural Lands Protection Board.
1994	Media campaign after "Cassilis" Field Day 30 March 1994	Mr Michael Pratt chairman of the Richmond Land Care Committee quoted in numerous media reports. [Note - Cassilis was the property managed by Mr Pratt].  Imported tree 'swallowing grazing lands' Townsville Bulletin 31 March 1994 p3.  "Prickly acacia alert: spread chokes NW" Queensland Country Life Thursday 7 April 1994 p1-2.  "Graziers after government help to fight prickly acacia" The Northern Miner Wednesday 6 April 1994 p1.  "Woody weed control requires government funding" North Queensland Register 7 April 1994 p4.  "Cassilis takes on prickly acacia" North Queensland Register 7 April 1994 p5.  "Minister's logic questionable" Editorial North Queensland Register 7 April 1994 p6.
1994	Local government resolution	The Local government Association of Queensland 1994 Annual Conference adopted <b>Richmond Shire Council</b> resolution "That representations to be made to the Minister for Lands to implement planning, research and destruction programs for prickly acacia ( <i>Acacia nilotica</i> )".
1994	National Action Plan	National Action Plan developed by the Queensland Department of Lands to be part of the National Weeds Strategy.  1. Outside the northern Mitchell grasslands  • Eradicate scattered infestations and establish monitoring; and  • Educate the community on its impact and spread  2. In the Northern Mitchell grasslands  • Educate land managers on adverse impact; and  • Control strategically important infestations  3. Develop improved integrated pest management through research  4. Develop non-weedy tree alternatives for shade and browse  5. Ensure funding to implement plan.
1994	R&D - Biological control research	Host testing shows that <i>Homichloda barkeri</i> a leaf-feeding beetle from Kenya is safe for release and its release is approved.
1994?	State legislation	Start of differential control requirements under Rural Lands Protection Act 1985 P3 Aramac, Bowen, Flinders, McKinlay, Richmond (To be REDUCED) P2 Remainder of State (To be DESTROYED)
1995	SWEEP commences	Strategic Weed Eradication and Education Program (SWEEP) targeted prickly acacia.  A strategic control line was established that roughly runs around the major infestations in the Shires of Aramac, Flinders, McKinlay and Richmond.  Control activity directed at isolated infestations of prickly acacia in other parts of the state and directly outside of containment area.
1995	R&D - Management strategy research	Adaptive management research undertaken by staff at the Tropical Weeds Research Centre, Charters Towers
1996	Major publication	Part of a systematic review of the pest status of important pests in Queensland.  Mackey, A. P. (1996). Prickly acacia (Acacia nilotica) in Queensland. Pest status review series - Land Protection Branch. Brisbane, Qld, Department of Natural Resources: 18.

Year	Issue	Comments
1996	R&D - Biological control research	Homichloda barkeri released. Difficulties in devising reliable mass rearing procedures required that the insect was
		recollected from Africa in 1995 and again in 1997.
4007	Matanasilitasitas	10,000 beetles subsequently released at 28 sites between 1996 and 1999. No evidence of establishment.
1997	Major publication	A comprehension review of the then available information.
		Mackey, A. P. (1997). "The biology of Australian weeds 29. <i>Acacia nilotica</i> ssp. <i>indica</i> (Benth.) Brenan." <u>Plant Protection Quarterly</u> <b>12</b> (1): 7-17.
1997	R&D - Biological control research	Survey for potential biological control agents in southern Africa undertaken under contract by entomologists associated with the ARC-Plant Protection Research Institute, Pretoria, RSA.  600 species collected from prickly acacia subspecies.
1997	R&D - Biological control research	Importation of the psyllid Acizzia sp. for testing.
1997	Prickly acacia National Strategy	Released 20 Nov 1997
1998	SWEEP ends	Sixty-six localised on-ground projects were directed at preventing the spread of prickly acacia from outside the control line into the Lake Eyre basin and the western Gulf river systems, included work in the Alice River, Thompson River, Middleton River, Leichardt River, Cloncurry River, Manneroo River, Darr River and the Gilliat River.
		Proponent % of project \$
		DNR 71.4% \$1,538,345
		Landcare 1.28% \$27,560
		Landholder 24.3% \$522,695
		Local government 3.1% \$66,064
		other 0.02% \$450
		Total 100% \$2,155,114
1998	R&D - Biological control research	Chiasmia assimilis a leaf-feeding caterpillar approved for release.
1998	R&D - Biological control research	Chiasmia inconspicua a leaf-feeding caterpillar approved for release.
1998	Committees	21 May 1998 Inaugural meeting of the Prickly Acacia Management Group (PAMG).
1998	Committees	16 Dec 1998 Inaugural meeting of the Rubber Vine and Prickly Acacia Steering Group
1999	Prickly acacia listed as a Weed of National Significance	Endorsed by National Ministerial Council.
1999	National Containment Line	National Containment Line map launched by Hon. Rod Welford, Minister for National Resources.
1999	Proposal to utilise prickly acacia	Pioneer Tree Farms Pty Ltd initial proposal "Feasibility of using Prickly Acacia as a source of pharmaceutical
		compounds, wood chips and in bio fertiliser production systems."
		Permits issued to proponent to facilitate feasibility study
1999	R&D - Biological control research	South African Field Station established by ABR Witt who continued surveying for agents in South Africa and neighbouring countries.
1999	R&D - Biological control research	74,000 <i>Chiasmia assimilis</i> from breeding stock sourced in Kenya were released in western Queensland but did not establish.
1999	R&D - Biological control research	73,000 Chiasmia inconspicua from breeding stock sourced in Kenya released at 63 sites no indication of establishment.
1999	High rainfall year	Expansion of infestations
2000-13	WONS prickle bush co-ordinator	Queensland Government hosted the WONS prickle bush co-ordinator through an appointment in the Land Protection Branch of the Department of Natural Resources.  Machinery of Government changes moved to Biosecurity Queensland within DPI, then DEEDI then DAF.
2000	High rainfall year	Expansion of infestations
2000	Tright fairliair your	Expansion of introductions

Year	Issue	Comments
2000	Committee	The Rubber Vine and Prickly Acacia Steering Group dissolved as the Prickly Acacia Management Group (PAMG) takes responsibility for a national focus to implement the National prickly acacia Strategy.  Role expanded to include mesquite and parkinsonia as National Prickle Bush Management.
2000	Proposal to utilise prickly acacia	The previous Pioneer Tree Farms proposal incorporated into a larger concept plan for harvesting and chipping prickly acacia to produce charcoal, 25,000 to 50,000 tonnes of activated carbon and 200 to 400 GWH of electricity per year. Concern that prickly acacia falls within the definition of a 'forest product' under the <i>Forestry Act 1959</i> . "DPI Forestry does not need to issue a sales permit for the harvesting proposal as the obligations imposed by the Rural Lands Protection Act (RLPA) constitute an authority of another Act sufficient to exempt the person from the operation of Section 54 of the Forestry Act."
2000	Major publication	"Prickly acacia Best Practice Manual" published by NHT & QNRME
2001	Proposal to utilise prickly acacia	Ren-Shu Pty Ltd production of electricity and ethanol from biomass at a joint facility.  Trial harvest at Hughenden, Flinders Shire.  Proposal did not proceed beyond trial harvest.
2001	Proposal to utilise prickly acacia	Pioneer Tree Farms Pty Ltd received Ministerial approval under s91A of the <i>Rural Lands Protection Act 1985</i> to harvest and sell prickly acacia.  Proposal did not proceed.
2000	Prickly Acacia Strategic Plan released	
2002	R&D - Biological control research	Chiasmia assimilis from breeding stock sourced from South Africa were released in coastal Queensland and significant populations now cause periodic defoliations in coastal areas. Also established in lower numbers on the Mitchel grass downs.
2002	State legislation passed	Land Protection (Pest and Stock Route Management) Act 2002 Prickly acacia declared as a Class 2 pest land owner obligation to keep land free.
2003	State legislation commences	Land Protection (Pest and Stock Route Management) Act 2002 commences 1 Jul 2003 with Regulations
2004	State legislation implementation	Guideline made under s15 of the Land Protection (Pest and Stock Route Management) Act 2002, Operational objective  To prevent the spread of prickly acacia into uninfested areas. To gradually reduce the area of existing infestations. Under operational actions  Prevention Destroy all infestations outside national containment lines.
2002-05	Community based action and capacity building	Natural Heritage Trust – National Weeds Program project  Project title: Community based strategic control  Funding: \$350,000  Summary: Enabled community based devolved grant projects for control of prickly acacia outside of the national containment line.  Led by local governments and regional NRM groups, 19 devolved grants in Queensland.
2002-04	Community capacity building	Natural Heritage Trust – National Weeds Program project  Project title: Improving prickly acacia mapping capabilities and outcomes  Funding: \$20,000  Summary: Map production for current and potential distribution, map production for Lake Eyre Basin, publication of prickle bush photo density standards.

Year	Issue	Comments
2002-04	Community capacity building	Natural Heritage Trust – National Weeds Program project
		Project title: National education and awareness – prickly acacia
		Funding: \$28,000
		Summary: Extension products (eg. resin mounted pods, stickers, posters, ID booklets, road signage, banner displays) and activities
		(field days).
2002-04	Community based action,	NHT National Weeds Program for Weeds of National Significance (devolved grants program administered by DNRM) -
	Dalrymple Shire	Strategic parkinsonia and prickly acacia eradication in the three Rivers Area of the Dalrymple Shire PK9.01C – NHT
		funds \$31,550, proponent and community contributions \$137,588.
2002-04	Community based action,	NHT National Weeds Program for Weeds of National Significance (devolved grants program administered by DNRM) –
	Belyando Shire	Implementing BMP in the Kilcummin District to control strategic Prickly acacia infestations PA4.01J –
2002.05	Community based action Winter	NHT funds \$4,838, local government and Community contributions \$33,434
2002-05	Community based action, Winton Shire, Southern Gulf	NHT National Weeds Program for Weeds of National Significance (devolved grants program administered by DNRM) - Community Based Action Learning Prickly Acacia PA 2.01
	Silire, Southern Guil	NHT funds \$360,000, State Agency (DNRM) and Community contributions \$1,000,230.
		Summary: Funded 16 community-based devolved grant projects within the national containment line.
2004	R&D - Biological control research	Cometaster pyrula, a leaf feeding moth from South Africa approved for release.
2001	Trab Biological control recoal on	Between 2004 and 2007, 43,000 larvae and 1700 moths were released in mainly coastal areas, to date no evidence of
		establishment.
2002-04	Community capacity building	Natural Heritage Trust – National Weeds Program projects
		Project title: Prickly acacia best practice management
		Funding: \$20,000
		Summary: Extension program and production of National Case Studies Manual
2004	Major publication	"National Case Studies Manual" published by NHT & QNRME
2005-07	Community based action and	NHT National Investment in Weeds Program (NIWP) – Strategic management and capacity building for mesquite,
	capacity building	parkinsonia and prickly acacia.
		NHT funds \$160,000, State Agency (DERM) \$336,959
2008	R&D - Biological control research	Survey for potential agents in India.
		77 insects and 14 diseases from Tamil Nadu in southern India and 14 insects and 11 diseases recorded from Gujarat
2008	Review of National Strategy	and Rajasthan.
2008-09	Community based action	Queensland Government "Blueprint for the Bush"
2008-09	Community based action	Burdekin Shire Council received more than \$430,000 to combat a prickly acacia infestation that covers about 1500
2000 00	Community based detion	hectares across two properties
2008-09	Community based action	Southern Gulf Catchments received \$489,300 for four projects to combat significant weed threats including prickly
	,	acacia
2008-09	Community based action	Carpentaria Shire \$200,000
2009	R&D - Biological control research	Preliminary host testing of potential agents begins at the Institute of Forest Genetics and Tree Breeding, Coimbatore,
		Tamil Nadu, India.
2010	High rainfall year	Expansion of infestations
2010	R&D - Biological control research	The gall forming rust was imported into high level quarantine facilities of CABI-Europe-UK for host testing.

Year	Issue	Comments
2010	Major publication	DEEDI Report 'Assessing property level awareness and best practice adoption for prickly acacia and mesquite management in western Queensland' based on grazier surveys'.  • 91% of properties are undertaking one or more actions to prevent the spread of weed seeds  • 76% of properties have undertaken weed control in the past 12 months, with 93% undertaking control in the past 5 years.
2011	High rainfall year	Expansion of infestations
2011	R&D - Biological control research	Three potential agents, a scale insect ( <i>Anomalococcus indicus</i> ), a leaf-weber ( <i>Phycita</i> sp. 'A') and a leaf weevil ( <i>Dereodus denticollis</i> ) were imported into quarantine facilities in Brisbane for exhaustive host testing.
2011	State legislation introduced	Biosecurity Bill 2011 lapsed when parliament prorogued.
2011-12	Community based action, Southern Gulf NRM	Management Project - Prickly Acacia Outlier Control in the Southern Gulf This project received funding through the open call process of Caring for our Country, 2011-2012.
2012	High rainfall year	Expansion of infestations
2012	Revised National Strategy released	
2013-18	War on Western Weeds initiative	War on Western Weeds commences \$1.88 million over 5 years Spread management research & biological control research (also includes bellyache bush)
2013	R&D - Biological control research	The leaf-weber ( <i>Phycita</i> sp. 'A') was shown to attack Australian native plants and was terminated while in quarantine.
2013	R&D - Biological control research	Resurvey for potential agents in India and Ethiopia.  A leaf-weber ( <i>Phycita</i> sp. 'B') imported into quarantine in Brisbane from India for exhaustive host testing.
2013	Community based action, Desert Channels Queensland (DCQ)	Queensland NRM Investment Program2013-18 \$2M (state funds) to 2 projects that address prickly acacia
2013	Community based action, Upper Gilliat Weed Management Group	Strategic control of prickly acacia, weed of national significance - Upper Gilliat channels  Everyone's Environment grants program (administered by DEHP) Round 1 \$100,000  The Upper Gilliat group consists of 10 cattle stations situated in the upper parts of the Gilliat River, a sub-catchment of the Flinders River in the Southern Gulf region. Landholders got together as a group in 2009 with a common goal – control of prickly acacia.
2013	Community based action, Nelia Pest Management Group	Strategic control of prickly acacia, weed of national significance - Julia Creek  Everyone's Environment grants program (administered by DEHP) Round 1 \$100,000  The Nelia group of some 36 properties around the township of Nelia (50km east of Julia Creek) formed over grave concerns about the spread of prickly acacia following good wet seasons from 2009-10.
2014	Community based action, Upper Thomson Catchment Landcare Group Inc.	Prickly acacia control around Muttaburra Everyone's Environment grants program (administered by DEHP) Round 2 \$40,000
2014	Community based action, Desert Uplands Build-up and Development Strategy Committee	Upper Lake Eyre Strategic Riparian Project Everyone's Environment grants program (administered by DEHP) Round 2 \$79,490
2013	State legislation introduced	Biosecurity Bill 2013
2014	State legislation passed	Biosecurity Act 2014 passed 6 March 2014.  Prickly acacia scheduled as Category 3 restricted matter. A person must not distribute or release prickly acacia. A person dealing with prickly acacia must take all reasonable and practical measures to prevent or minimise the biosecurity risk.
2016	State legislation commences	Biosecurity Act 2014 commences 1 July 2016 with Regulations

Year	Issue	Comments
2015	Community based action, Flinders	Flinders Good Neighbour Policy
	Shire	
2016	Community based action, Desert	Queensland Feral Pest Initiative
	Channels Queensland (DCQ)	\$1M (state funds) to DCQ for prickly acacia eradication
2016	Community based action, Desert	Queensland NRM Investment Program2013-18
	Channels Queensland (DCQ)	DCQ applies for \$360,000 (state funds)
2017	Proposal to use as biofuel feed stock	Ministerial press release about prickly acacia as feedstock for the Gladstone Southern Oil refinery
		Other In-Confidence proposals
2016-17	AEC inquiry	

#### **Selected clippings from Queensland newspapers**



**Figure 1** Noxious weeds notice published in the Bowen Independent (Qld.: 1911 - 1954), Tuesday 29 February 1916, page 2.

NOTICE is hereby given that an amendment to Section 16 of the City By-law, by the inclusion of the plant Prickly Acacia (Acacia Arabica) in the Schedule of Novious Plants, has been passed by the Council, copy of which is denosited at the office of the undersigned and is open to inspection.

E. H. BRYANT.

Town Clerk.

Town Hall, Rockhampton,
June 20, 1944.

**Figure 2** Notice from the Morning Bulletin (Rockhampton, Qld.: 1878 - 1954), Wednesday 21 June 1944, page 4

## Drought Fodder, But A Pest

Two of the acacias, Arabica and Farnesiana, which make prolific growth around Rockhampton and contigous districts, and which are considered to be a valuable drought fodder by some cattle owners, may shortly be added to the long list of noxious plants.

Widely known for their very prickly branches and terminals and their sparse leaf, which must be a small contribution to the nu-

affected stock, they are getting out of bounds on roadways and watercourses in surrounding shires.

Owing to their recent rapid spread, and the danger that they may adversely affect the area from a flooding point of view, the Fitzroy Shire Council is seeking to have the trees declared to be noxious. While admitting that the trees have some value as a drought folder, members of the council look with great concern upon the encroachment on creeks and lowlying areas. Mem'ers also fear that the congestion caused by their rapid sprend will cause flooding. Private properties as well as stock routes are becoming seriously affected with robust growths. Based upon this the council, through its solicitor, is proceeding to these two acacia varieties declared noxious.

**Figure 3** Clipping from the Morning Bulletin (Rockhampton, Qld.: 1878 - 1954), Friday 2 August 1946, page 8

# Acacia Arabica Spread

There is some justification for the contention of coastal land owners that the value of acacia arabica as a fodder tree is outweighed by its steady invasion of good grazing land. On Tuesday, Fitzroy Shire councillors said the tree might become a greater pest than prickly pear was years ago.

In western Queensland some of the 123 varieties of acacia in Australia, of which arabica is one, are valued as fooder and shade trees for sheep. But such is not the case on the coast.

The spread of this small thorny tree on river flats at Lakes Creek, \_\_ika and Depot Hill is cauling concern to local authorities and land owners. It is almost 30 years since the first arabica was noticed on these river flats. It was then incorrectly recognised as the algeroba, a much more valuable fodder tree yellding protein rich rick. In the intervening years, the arabica has spread entensively on botr. banks of the river and now covers some hunderds of acres of rich delta grazing land near Rock Landon.

There are also reports that although not yet considered in pest proportions, the tree is spending on ana-branches of the Fitzroy River a few milesupstream from Rockhampton

#### NUTRITIOUS PODS

On the coast, the fodder value of the acacia arabica is confined amost wholly to the seed pods or beans. These are relished by all forms of livestock, which search for the dry fallen pods. The leaves also provide a small amount of fodder but the thorny nature of the tree is a deterrent to hypersure stock.

the tree is a deterrent to hungry stock.

While the area in the Rockhampton district covered by this tree is not large, the fact remains that such a pest has a slow build-up until a certain coverage is reached. Its spread then becase rapid. This is the objection which land

As is the case with some members of the acacia family arabica is difficult to destroy by methods of eradication, such as ringbarking and felling.

A point of interest is that grow he of arab. In Skyring's Paddock, which were covered by flood waters earlier in the year, are now completely dead

**Figure 4** Clipping from Morning Bulletin (Rockhampton, Qld.: 1878 - 1954), Thursday 15 November 1951, page 4

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