

## **Recommendation for listing *Vachellia farnesiana* (Mimosa) as a Feral Native Species under Clause 17(2)(b) of the Native Vegetation Regulation in the Border Rivers-Gwydir and Namoi CMAs**

### **Background**

Under the *Native Vegetation Regulation 2005* *Vachellia farnesiana* is listed as an Invasive Native Species in the following IBRA regions within the Border River-Gwydir (BR-G) and Namoi Catchment Management Authority (CMA) boundaries:

- Brigalow Belt South (BR-G & Namoi);
- Darling Riverine Plains (BR-G & Namoi);
- Nandewar (BR-G & Namoi); and
- New England Tablelands (Namoi).

The difficulty with the current listing of *Vachellia farnesiana* as invasive is that any assessment to clear must satisfy the following criteria for acting invasively (from 7.2 Environmental Outcomes Assessment Methodology):

- (a) the species is invading plant communities where it has not been known to occur previously, or the species is regenerating densely following natural or artificial disturbance, and
- (b) the invasion and/or dense regeneration of the species is resulting in change of structure and/or composition of a vegetation community, and
- (c) the species is within its natural geographic range.

The problem we are encountering in the BR-G and Namoi CMAs is that to satisfy the above criteria *Vachellia farnesiana* needs to be demonstrating characteristics of natural resource degradation prior to being eligible to be cleared under the Regulation. Consequently, we wish to be able to manage the species before natural resource degradation occurs and requires significant resources to manage. The main issue here is that *Vachellia farnesiana* can build up a significant seed-bank in the soil by the time it has satisfied the above invasive criteria.

*Vachellia farnesiana* can be managed under the regrowth provisions if it has previously been lawfully cleared. However, where *Vachellia farnesiana* is growing for the first time it cannot be lawfully cleared as regrowth and requires either a Property Vegetation Plan (PVP) with offsets or an Invasive Native Scrub PVP before it can be lawfully cleared.

Many landholders don't manage the species until it becomes a serious problem that is threatening their grazing production system, or purchase a property where the species is already well established, or are reluctant to undertake a PVP (and its associated in-perpetuity commitments and land title listing). By listing *Vachellia farnesiana* as a feral we still maintain a level of control over how, and how much, clearing is undertaken, thereby ensuring that the balance between environmental and production outcomes is maintained.

In addition, the BR-G and Namoi CMAs believe that changing the listing of *Vachellia farnesiana* from an Invasive Native Species to a Feral Native Species under the *Native Vegetation Regulation 2005* will contribute to the NSW Government's goal of reducing red tape. Specifically, 'ensuring regulatory efficiency, thereby minimising regulatory burden on business and eliminating red tape, and improving competitiveness, economic growth and productivity in NSW' implemented in early 2007 under the former government and currently under review by the Better Regulation Office – Department of Premier and Cabinet.

## 1. Description of the species

The following description is taken from the NSW RBG PlantNET website.

**NEW SOUTH WALES FLORA ONLINE**

 [Printable Page](#)



[\*Vachellia farnesiana\*](#) (L.) Wight & Arn.

Family [Fabaceae - Mimosoideae](#)

**Common name:** Mimosa Bush, Cassie, Farnese Wattle, Thorny Acacia

*Vachellia farnesiana* (L.) Wight & Arn. [APNI\\*](#)

**Synonyms:** *Acacia farnesiana* (L.) Willd. [APNI\\*](#)

*Acacia lenticellata* F.Muell. [APNI\\*](#)

*Acacia farnesiana* var. *lenticellata* (F.Muell.) F.M.Bailey [APNI\\*](#)

**Description:** Spreading shrub mostly 1.5–4 m high; bark smooth or finely fissured, grey-brown; branchlets ± zigzagged, often hairy towards apex, glabrous with age, with prominent lenticels.

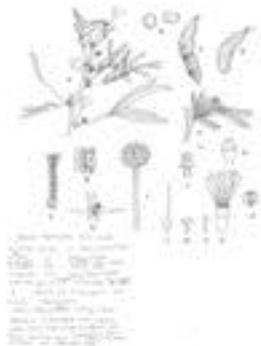
Leaves with petiole 0.2–2 cm long, hairy especially above, with a circular to elongated gland; rachis 0.3–5.5 cm long, hairy especially above, occasionally with a jugary gland at apex, interjugary glands absent; pinnae 1–7 pairs, c. 1–4 cm long, hairy especially above; pinnules 5–23 pairs, mostly narrow-oblong, 3–10 mm long, 0.5–2 mm wide, with minute hairs on margin near base (sometimes towards apex) or glabrous, midvein and lateral veins more visible and slightly raised beneath; stipules spinescent, usually 5–25 mm long. Heads globose, 33–95-flowered, bright yellow or orange-yellow, 1–3 or more in axil of leaves; peduncles mostly 3–30 mm long, hairy. Pods cigar-like, straight to strongly curved, ± terete, turgid, 1.5–8.5 cm long, 8–17 mm wide, dark brown to blackish, glabrous; seeds transverse or oblique, separated by pith.



**Habit**  
Photo T.M. Tame



**Flower**  
Photo T.M. Tame



**Illustration**  
R.A. Griffiths



**Herbarium Sheet**

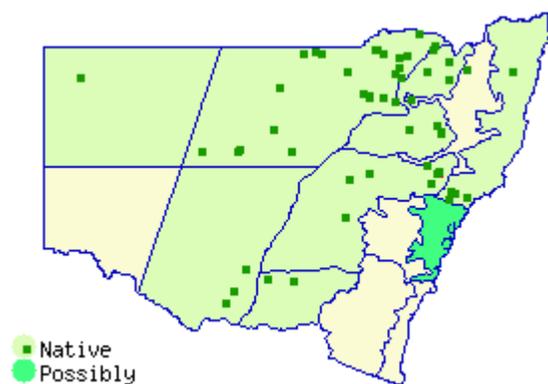
**Flowering:** irregularly throughout year, usually June–Sept.

**Distribution and occurrence:** north from Jerilderie. Widespread through the tropics and subtropics of central America (where native), Africa and Asia, often being naturalised.

Grows in open woodland, shrubland and grassland, in alluvial clay soils and sandy loams, on open plains and near watercourses.

NSW subdivisions: NC, ?CC, NWS, CWS, SWS, NWP, SWP, NFWP

Other Australian states: Qld W.A. S.A. N.T.



Plants of this taxon in Australia are probably all referable to var. *farnesiana*. **Probably arrived in Australia prior to European settlement, which affects its classification as 'native' or 'introduced' by land management authorities.** The roasted pods have been eaten by Aboriginal cultures. The foliage and young, green pods are palatable to cattle and sheep. **A potential weed of grasslands.** Cultivated in Mediterranean countries for its fragrant flowers to make perfumes.

Text by P.G. Kodela (April 2006; last edit Mar 2010)  
Taxon concept: P.G. Kodela & Peter G. Wilson, *Telopea* 11(2): 233–244 (2006).

AVH map\*\*\*

**APNI\*** Provides a link to the Australian Plant Name Index (hosted by the [Australian National Botanic Gardens](#)) for comprehensive bibliographic data

\*\*\*The AVH map option provides a detailed interactive Australia wide distribution map drawn from collections held by all major Australian herbaria participating in the [Australian Virtual Herbarium](#) project.



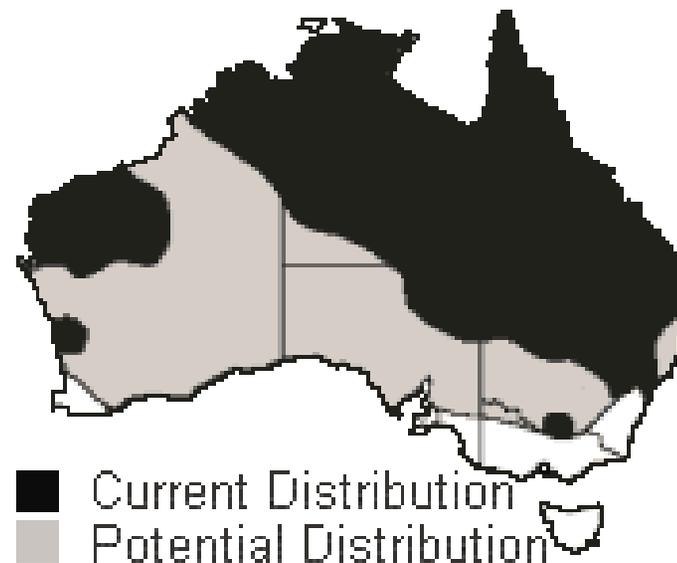
Compiled and edited by staff of the National Herbarium of New South Wales  
© 1999 – 2010 Royal Botanic Gardens & Domain Trust, Sydney Australia

## 2. The natural range of the species

Widespread throughout northern Australia (though absent from extreme north), north-eastern S.A. and the North Coast to western N.S.W. as far S as Jerilderie; scattered or forming dense thickets, in low open woodland, woodland, tall open shrubland, grassland and occasionally low open forest, in alluvial clay soils and other heavy soils as well as sandy loams, frequently on open plains, floodplains and near watercourses. Flowers mostly June–Sept., however flowers irregularly throughout the year; fruits mostly Nov.–May, however may fruit throughout the year.

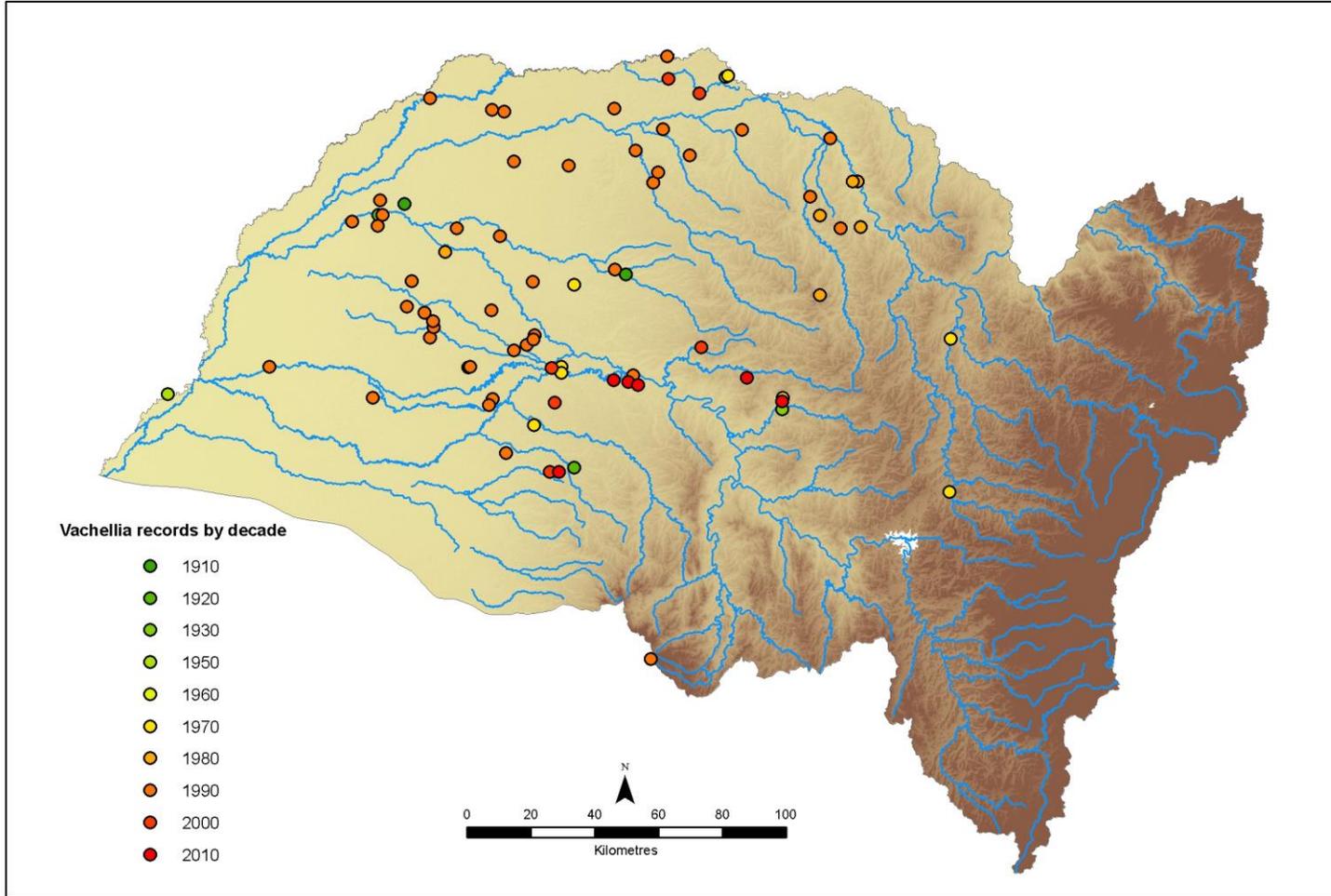
**Believed to have been introduced to Australia before European settlement, from Central America (where it is native) via the Philippines.** Also found in subtropical and tropical America, Africa and Asia, often being naturalised. Roasted pods of *A. farnesiana* are eaten by Aborigines. The foliage and young, green pods are palatable to cattle and sheep. *Acacia farnesiana* is a potential weed of grasslands, and according to E.Anderson, *Pl. Central Queensland* 26 (1993) it invades trampled areas, particularly along watercourses. Details of ecology, utilisation, etc. of *A. farnesiana* in Australia are given by N.Hall *et al.*, CSIRO Forest Res. *Australian Acacias* No. 15 (1981).

The status of *Vachellia farnesiana* as native in Australia is inconsistent between the States. Both Queensland and Western Australia regard this species as exotic or alien whilst NSW proposes that it “*probably arrived in Australia prior to European settlement*” (Kodela, 2006). It is unquestionably regarded as either a potential or actual weed species in all states where it currently exists and is regarded by the local weed authority as an environmental weed (see following pages).

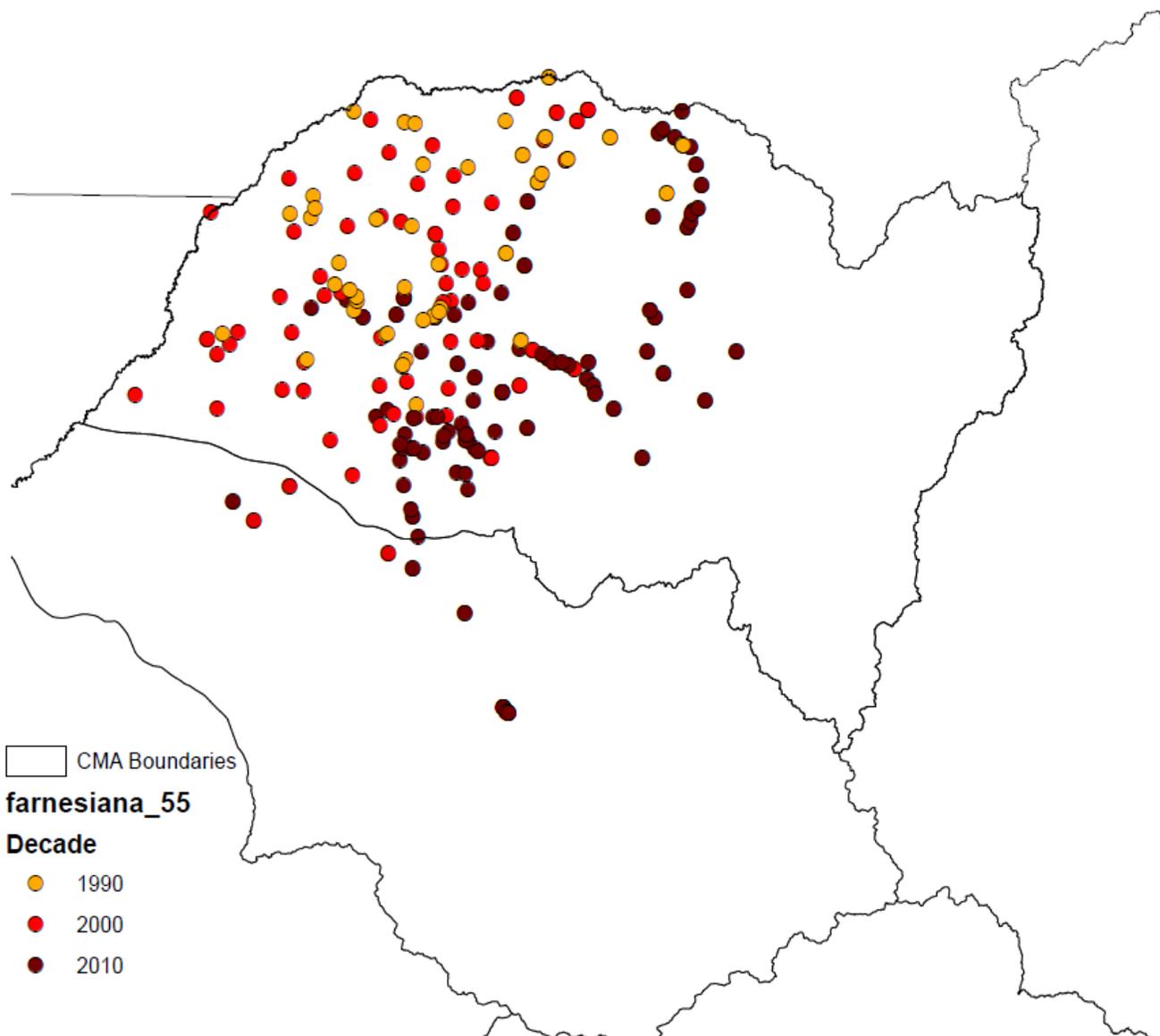


Data from: Weeds Australia website

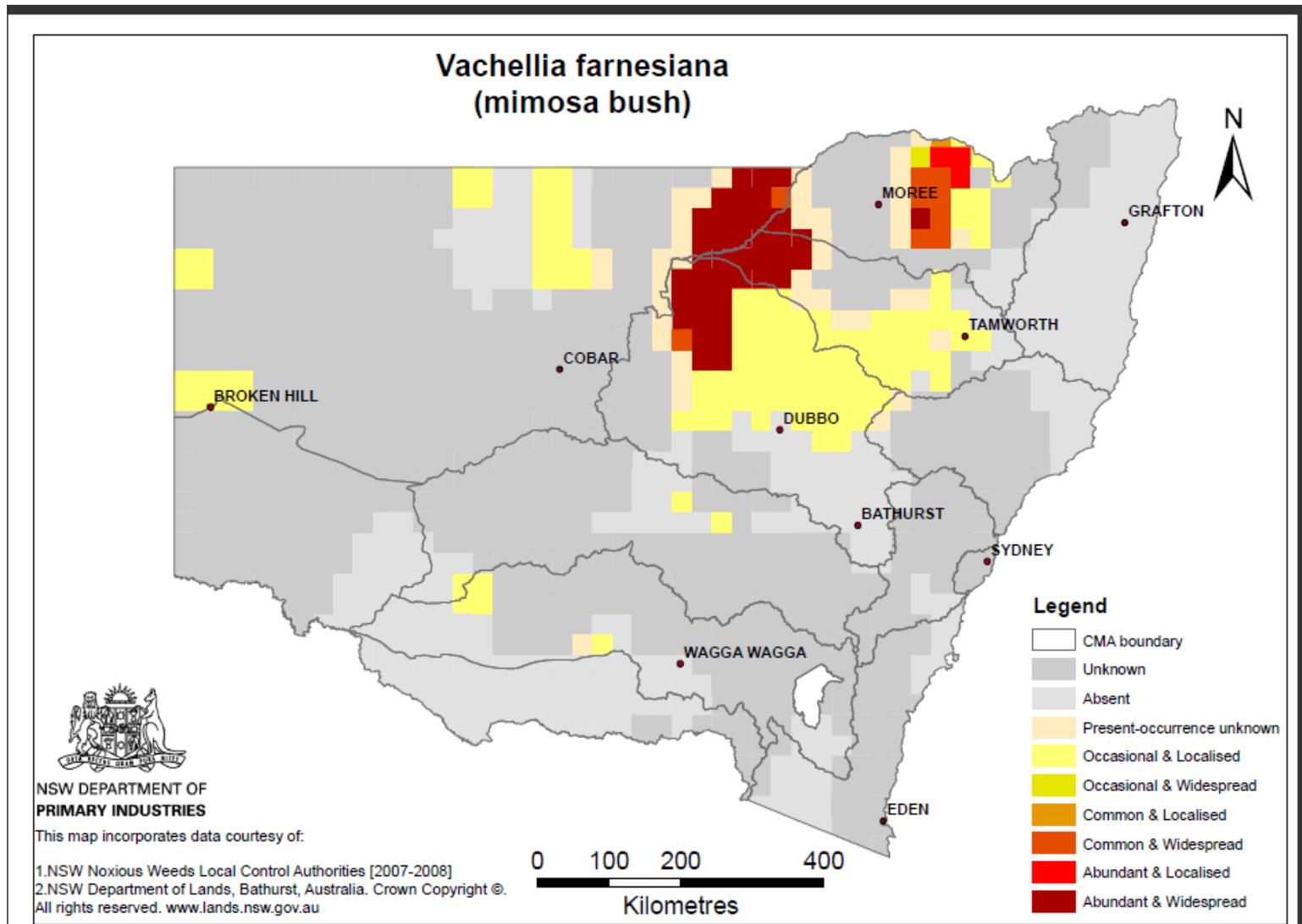
**Historic records of *Vachellia* from the OEH Wildlife Atlas**



### Location data from the OEH YETI database



Distribution from the NSW DPI website



North-West Weeds information regarding the weed potential of *Vachellia farnesiana*



# North West Weeds

Your local guide to local noxious weed control (NSW, Australia)

## Mimosa bush - briar bush

- Home
- Search
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- News
- Spray contractors
- Weed Lists
- Weed Photos
- Noxious Weeds Act
- Related Weed Sites
- Prickly Pear History

[PRINT VERSION 1](#) | 
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Mimosa bush\* (*Vachellia* - previously *Acacia* - *farnesiana*) is an invasive and thorny plant spreading over grazing properties in north-western New South Wales and beyond. It has taken over large areas around Moree, Pallamallawa, Boggabilla and Yetman. It continues to spread into new areas. Mimosa bush is very difficult, and costly, to control (see details of herbicide trials, below).



[\*Mimosa bush - not to be confused with northern Australia's *Mimosa pigra*. Also incorrectly referred to sometimes as "prickly acacia" - *Acacia nilotica*.]

Mimosa bush is NOT a [declared noxious weed](#) in New South Wales. It is, in fact, classed as a native plant (despite its origin). *Flora of New South Wales* states that mimosa bush is:

*"Native of trop. Amer., probably introduced into Aust. prior to European settlement. Widely cultivated overseas for its decorative qualities and the essential oil obtained from its flowers for use in the perfume industries. It is grown for hedges and windbreaks, however, it may form dense thickets and become weedy."*



Mimosa bush has had some uses: it is regarded by some as a valuable source of food for sheep. Sheep (and goats, camels) tend to keep the plant under control, but over the past 20 years or more changes in land management, reduced sheep numbers and the move into cattle has seen the plant really "take off". Cattle also find food value in the plant (especially the seed pods), but the viable seeds pass unscathed through the stomach and are a major contributor to the ever-increasing number of new plants every year. This is exactly what has happened to the Yetman Common over the past 10 or so years...as shown in this photo (left).

[Click on photos to download a larger picture]



Photo (left) close-up of mimosa bush. Note the thorns, and the bean-like seed pods. Each seed pod contains about 10 seeds. The pods are a good food source, rich in protein. Cattle feed on the mimosa bush pods. The seeds pass through the animals and are subsequently dropped at random anywhere in the paddock. Photo (right) close-up of seed pods.



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ABN 16 052 158 879

North-West Weeds information regarding the weed potential of *Vachellia farnesiana*

# Environmental weed



## Mimosa bush (*Acacia farnesiana*)

Noxious Weeds Display sponsored by NIWAC  
(Northern Inland Weeds Advisory Committee)

Mimosa\* bush (aka "briar bush") is an invasive and thorny pest plant. It has taken over large grazing areas around Moree, Pallamallawa and Yetman, and continues to spread eastwards. It's VERY difficult to kill.



Mimosa bush originated from tropical America. It is widely used in some overseas countries for hedges and windbreaks, and the oil from its flowers is an important ingredient in the manufacture of perfume.



Mimosa bush produces protein-rich seed pods which are sought after by grazing animals. The seeds are then scattered randomly around the paddock. Eventually, the whole area is completely dominated by Mimosa bush.

**Mimosa bush is a threat to our environment. It is very difficult and expensive to treat manually or with herbicide. Don't let it become established on your property!**

*[\*Mimosa bush - not to be confused with "prickly acacia" or N. Australia's Mimosa pigra.]*

Photos/presentation by Les Tanner, North West Weeds. 2/06



**MIMOSA BUSH** (*Vachellia farnesiana* – previously *Acacia farnesiana*) is an invasive and thorny plant spreading onto many grazing properties in north-western NSW. Mimosa bush was once promoted as a drought tolerant feeding supplement. Sheep used to keep plant numbers down, but the general move towards cattle has seen this situation change radically in recent years!

### **THE PROBLEM**

The dense and thorny nature of mimosa bush restricts stock access to grazing, shade and watering areas. The sharp thorns can cause eye damage to stock when they are foraging for grass amongst the base of the plant. Stock seek out the protein-rich seed pods – the seeds pass through grazing animals (especially cattle) to be deposited randomly throughout the paddock, guaranteeing further spread. Each seed pod averages 10 very durable seeds.

### **IDENTIFICATION**

Mimosa bush (also known as briar bush) averages a height of around 1.5m. Almost every part of the plant contains sharp thorns. Flowers are fluffy and golden-yellow like wattle. The 60-70mm long seed pods are a prominent feature of the plant.

### **LEGAL REQUIREMENTS**

Mimosa bush is NOT a declared NOXIOUS WEED within the NIWAC region. On the contrary, it is deemed to be a native plant (as it is a pre-European introduction to Australia). Mimosa bush therefore comes under the *Native Vegetation Act 2003* umbrella.

Information from North-West Weeds.

**Acacia farnesiana (tree, shrub)** 

[Ecology](#)

[Distribution](#)

[Management Info](#)

[Impact Info](#)

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PRINTER VERSION



**Taxonomic name:** *Acacia farnesiana* (L.) Willd.

**Organism type:** tree, shrub

Probably a native of tropical America, *Acacia farnesiana* was introduced to many tropical countries for its bark, gum, seed and wood. It is often planted as an ornamental or to check erosion, and is also used in the perfume industry because of its scented flowers. This thorny, deciduous shrub grows to 4m in height forming impenetrable thickets or sometimes a more open cover and prefers dry habitats between sea level and 1000 m. In Australia it occurs along watercourses on rangeland and farmland limiting access to water. It has also become an invasive species in Fiji, French Polynesia, New Caledonia, Solomon Islands, and Vanuatu.

**Description**

"This thorny, deciduous shrub grows to 4 metres in height, sometimes forming impenetrable thickets, although in most areas it forms a more open cover" (Smith, 1985. In PIER, 2002). "Erect much-branched shrub; leaves with 4-8 pairs of pinnae, pinnae with 10-12 pairs of small asymmetric leaflets ; stipular thorns straight and slender; flowers in pedunculate axillary heads, 1-3 heads together, subglobose; flowers yellow, fragrant; heads about 1-1.5cm across; stamens numerous; pods dark brown or black, up to 8cm long, to 12mm broad, plump, often slightly curved; pulp within sweetish; seeds compressed, elliptic, brown" (Stone, 1970, in PIER, 2003) (differences according to Paiva, 1999).

**Similar Species**

*Acacia nilotica*, *Prosopis* spp.

**Occurs in:**

agricultural areas, coastland, desert, range/grasslands, riparian zones, ruderal/disturbed

**Habitat description**

*Acacia farnesiana* thrives in dry localities and on loamy or sandy soils where it may serve as a sand binder (ranging from warm temperate dry through tropical desert to moist forest life zones, *Acacia farnesiana* is reported to tolerate annual precipitation of 6.4 – 40.3 dm (a mean of 20 cases is 14.0 dm), annual mean temperature of 14.7–27.8°C (mean of 20 cases = 24.1°C), and pH of 5.0–8.0 (mean of 15 cases = 6.8) (Duke, 1983). Dry

habitats between sea level and 1000m (PIER, 2002). Smith (1985 In PIER, 2002) reports that although the aerial portions may be killed by fire, this plant soon regenerates from basal shoots.

#### **General impacts**

*Acacia farnesiana* can spread readily and grow quickly, (Land Protection, 2001). As it often forms thorny thickets along some watercourses in Australia, it can be a considerable nuisance during mustering and can also hinder access to water (Land Protection, 2001). While access is less of a problem in areas where cattle graze on the mimosa, they readily eat the nutritious seed pods assisting its spread.

#### **Uses**

A tree of economic importance in South and East Africa, Rhodesia, India and the Rio Grande do Sul area of South America (Duke, 1983). The bark and the pods are a source of tannin and are used for tanning and dyeing leather (University of Connecticut, 2003). The flowers provide a fragrant essential oil which is used in the perfume industry as a violet scent substitute (Le Hou'erou, 2002). A gummy substance obtained from the pods is used in Java as cement for broken crockery. Other parts of the plant are used as an ingredient in the Ivory Coast for arrow poison (University of Connecticut, 2003). Trees add nitrogen and organic material, which improve the soil and are sometimes used for erosion control on poor sloping soils unsuitable for agriculture (Duke, 1983). Products are often used in folk medicine as styptics or astringents (Duke, 1983). In India and some African countries the pods are used as substitute for tamarind *Tamarindus indica* L. (Paiva, 1999). Cultivated in S.W. Europe for ornamental purposes and for perfumery industry (Tutin *et al.*, 1992).

#### **Notes**

In Hawaii *Acacia farnesiana* was formerly cultivated for an attempted perfume industry. It is now naturalised and common, sometimes becoming a pest in dry, open, disturbed areas, 2-400m (Wagner *et al.*, 1999. In PIER, 2002). Although the aerial portions of the plant may be killed by fire, it soon regenerates from basal shoots, (Smith, 1985. In PIER, 2002). In Spain *Acacia farnesiana* is naturalised in rocky, poor soils (Paiva, 1999)

#### **Geographical range**

Native range: Probably native to tropical America (Dominican Republic - Tutin *et al.*, 1992).

Known introduced range: Naturalised and cultivated all over the world. It is recorded in Africa (e.g. Rhodesia, Mozambique and coastal areas of Ghana), the Arabian peninsula, Indian Ocean islands, Pacific ocean islands, Pacific rim including Australia, Pakistan. Grown throughout India and often planted in gardens. An invasive species in Fiji, French Polynesia, New Caledonia, Solomon Islands, and Vanuatu (Waterhouse, 1997). Reported by Waterhouse (1997) to be present in Niue but not seen there in a more recent survey (PIER, 2002). Naturalized in Spain (Paiva, 1999), France, Italy and Sicilia (Tutin *et al.*, 1992). Cultivated in Gardens in Portugal and in Madeira Island (Franco, 1943)

#### **Introduction pathways to new locations**

*Agriculture*: In Hawaii, formerly cultivated for an attempted perfume industry (Wagner *et al.*, 1999. In PIER, 2002)

#### **Local dispersal methods**

*Consumption/excretion*: The seed pods are nutritious and readily eaten by ungulates, which assist in the spread of this species. (PIER, 2002)

#### **Management information**

Preventative measures: A [Risk Assessment of \*Acacia farnesiana\*](#) for Hawai'i and other Pacific islands was prepared by Dr. Curtis Daehler (UH Botany) with funding from the Kaulunani Urban Forestry Program and US Forest Service. The alien plant screening system is derived from Pheloung *et al.* (1999) with minor modifications for use in Pacific islands (Daehler *et al.* 2004). The result is a score of 14 and a recommendation of: "Likely to cause significant ecological or economic harm in Hawai'i and on other Pacific Islands as determined by a high WRA score, which is based on published sources describing species biology and behaviour in Hawai'i and/or other parts of the world."

Physical: "Destroyed by cultivation and grubbing" (Swarbrick, 1997. In PIER, 2002). Although the aerial portions may be killed by fire, it soon regenerates from basal shoots" (Smith, 1985). Once established, the seedlings grow rapidly and resprout readily following damage or top removal. *Acacia farnesiana* sprouts may grow to almost half their original total plant height within 5 months after shredding (Powell *et al.*, 1972). Thus, mechanical top removal results in only short-term suppression of *A. farnesiana* (Mutz *et al.* 1978) and gives the species competitive advantage over

associated, slower growing woody plants. Almost pure, dense stands of *A. farnesiana* may develop within two to three growing seasons following brush control methods that disturb the soil.

**Chemical:** Probably susceptible to translocated herbicides, including picloram, metsulfuorn-methyl, glyphosate and triclopyr, and possibly 2,4-D applied to the foliage, freshly cut stumps or by stem injection at standard rates.

Also probably susceptible to residual herbicides, including tebuthiuron and hexazinone (Swarbrick, 1997 in PIER, 2002). "Sensitive to foliar applications of triclopyr at 1 lb/acre and metsulfuron at 0.45 oz/a and to basal bark applications of 2,4-D or triclopyr at 2% in diesel. Drizzle applications were not effective in foliar and basal bark trials at Kihei, Maui, but these trials were confounded by a severe drought" (Motooka *et al.* 2002. In PIER, 2002).

#### **Nutrition**

*Acacia farnesiana* can fix atmospheric nitrogen through symbiotic relation with *Rhizobium* allowing growth in nitrogen poor soils. Thrives on poor, dry soils but favours deeper, moister, more fertile soils (Duke, 1983).

#### **Reproduction**

It is a prolific seed producer (Scifres, 1974). The seeds readily germinate after soil disturbance and plants grow rapidly (Mutz *et al.*, 1978, Land Protection, 2001). Seeds are dispersed by ungulates which eat the pods (PIER, 2002).

**Reviewed by:** Dr. Hélia Marchante. Escola Superior Agrária de Coimbra Departamento de Ciências Exactas e Ambiente Sector de Biologia e Ecologia, Bencanta. 3040-316 Coimbra Portugal.

**Principal sources:** [Pacific Islands Ecosystems at Risk, \(PIER, 2002\) \*Acacia farnesiana\*](#)

**Compiled by:** IUCN/SSC Invasive Species Specialist Group (ISSG)

To contribute information, please contact [Shyama Pagad](#).

**Last Modified:** Thursday, 23 March 2006



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#### **An analysis of the status of *Vachellia farnesiana* from:**

Bean, AR (2007) A new system for determining which plant species are indigenous in Australia. *Australian Systematic Botany* **20**, 1-43.

***Vachellia farnesiana*** (L.) Wight & Arn. (syn. *Acacia farnesiana* (L.) Willd.) (Fig. 29)

Reason for inclusion. Conflicting origin status.

Given as alien in: FAust, FKimb, CeAVP, Fseq, CeQld, all as *Acacia farnesiana*.

Given as indigenous in: Baines (1981), FSA (with doubt), FCA (with doubt), CeNT, CeSNT, NTHerb, Fbase, CeSA (with doubt), FNSW (with doubt), CatWA, all as *Acacia farnesiana*.

Data. Historical: Bentham cites 'NW Coast, Cunningham; Sturt's Ck, Mueller; Port Denison, Fitzalan; Darling River to Cooper's Creek, Victoria Expedn; in the interior, Mitchell'. Recorded on several occasions by Leichhardt on the Overland Expedition (Leichhardt 1847).

Ecological: Occurs in both modified and unmodified habitats; invasive (Batianoff and Butler 2002), and will form dense thickets (Anderson 1993; Tanner 2002–2005); a NAT species.

Phytogeographical: The Australian occurrences are highly disjunct from the presumed ancient distribution in southern North America; the closest relatives of *V. farnesiana* (*Acacia schaffneri*, *A. tortuosa* and *A. pacensis*) all occur in Texas, Mexico or the Caribbean (Clarke et al. 1989); known to be naturalised in many countries throughout the world (Holm et al. 1979; Randell 2002); no closely related species of *Vachellia* is indigenous to Australia.

Comments. During the Dutch occupation of Taiwan (1624–1662), *Vachellia farnesiana* (and other species) were introduced from America into Taiwan and became naturalised (Xie et al. 2000). *V. farnesiana* was introduced to many countries for use in the perfume industry. The seedpods are nutritious and readily eaten by ungulates, which assists in the spread of this species (PIER 2005).

Ancient distribution. South-central USA, south-eastern USA, Mexico, Central America, Caribbean (Clarke et al. 1989), northern South America (ILDIS 2006), Brazil (ILDIS 2006), southern South America (Cialdella 1984).

Specific references. Anderson E (1993) 'Plants of central Queensland.' (Department of Primary Industries: Queensland)

Cialdella AM (1984) El genero *Acacia* (Leguminosae) en la Argentina. *Darwiniana* 25, 59–111.

Clarke HD, Seigler DS, Ebinger J (1989) *Acacia farnesiana* (Fabaceae: Mimosoideae) and related species from Mexico, the south-western USA, and the Caribbean. *Systematic Botany* 14, 549–564.

Randall RP (2002) 'A global compendium of weeds.' RG and FJ Richardson: Melbourne)

Tanner LR (2002–2005) North west weeds. Noxious weed control unit for the shires of Gwydir and Inverell, New South Wales. Available at [www.northwestweeds.nsw.gov.au/index.htm](http://www.northwestweeds.nsw.gov.au/index.htm) [Verified 13 September 2006]

Xie Y, Li Z, Gregg WP, Li D (2000) Invasive species in China—an overview. *Biodiversity and Conservation* 10, 1317–1341.

### **Key to determination of origin status for non-endemic plant species in Australia (Bean, 2007)**

*1. Historical evidence indicates that the species was not present in the region before European settlement (e.g. first herbarium records are well after this time)....alien*

*1x. Historical evidence for the species' presence in the region before European settlement is strong (e.g. very early herbarium collections exist), evidence is equivocal (e.g. there are no known early collections, but the species may have been overlooked or occurred in an area not botanised)*

*2. The species meets only a minority of ecological criteria, and a long-standing population exists elsewhere in the world)....alien*

*2x. ... ....The species meets a majority of ecological criteria, or ecological evidence is equivocal*

*3. The species is an aquatic, semi-aquatic, strand plant or plant with adhesive fruits....indigenous*

*3x. ... ....The species is a 'non-adhesive terrestrial' plant (i.e. not in those categories)*

*4. The species is present (and apparently indigenous) in areas adjacent to Australia, especially Timor, Java, New Guinea, New Zealand....indigenous*

*4x. ... ....A disjunction of more than 2500 km exists between the Australian occurrence and the postulated ancient distribution of the species*

*5. The species is known as a naturalised plant elsewhere in the world or no related species are indigenous in Australia ....alien*

*5x. ... ....The species is not known to be naturalised anywhere in the world, and related species are indigenous in Australia indigenous*

**Recommended status for Australia: alien (1x, 2)**

**Ecological criteria (Bean, 2007)**

**An indigenous species has the following characteristics:**

- *consistently occurs in intact unmodified habitat (conversely, a species that is known only from croplands, roadsides and other frequently disturbed sites is likely to be alien);*
- *is not persistently invasive in its area of occurrence (conversely, a species that persistently invades or encroaches upon natural communities is likely to be alien);*
- *is attended by a range of pests and diseases (conversely, a species that is pest- and disease-free is probably alien);*
- *displays a range of phenotypic or genetic diversity (conversely, phenotypically or genetically uniform populations are probably derived from a single introduction);*
- *does not display any post-settlement expansion of geographical range within the region (conversely, a species that has a known or inferred expansion in its range over the past 100–150 years is likely to be alien); 3*
- *any discontinuities of distribution of the species within the region are related to climatic and edaphic factors (conversely, a species with a patchy distribution correlated with human settlement patterns is probably alien).*

***According to the Bean (2007) classification, *Vachellia farnesiana* meets only a minority of these criteria and is therefore considered alien.***

**3. The land to which the listing applies**

As a consequence of the alien status of this species, it is considered desirable to list *Vachellia farnesiana* as a *feral species* under Clause 17(2)(b) of the *Native Vegetation Act 2003*, within the boundaries of the BR-G and Namoi CMA areas.

**4. Proposed management conditions (if any) that may restrict how clearing of the species may be undertaken**

*Vachellia farnesiana* can only be cleared on the specified land above as a Routine Agricultural Management Activity (RAMA) if all the following management conditions are met.

4.1. The removal of the species is part of a Vegetation Management Plan (VMP) endorsed in writing by the General Manager of the Border Rivers-Gwydir CMA or Namoi CMA before on-site work commences and satisfactorily addresses the following issues:

- The method(s) of *Vachellia farnesiana* removal is to be specified in the VMP. In environmentally sensitive areas (slopes > 18 degrees, sand dunes, skeletal, rocky soils, or in riparian areas) clearing is to be of individual plants with no or minimal disturbance to groundcover. Appropriate methods may include selective herbicide application, manually pulling out plants, use of hand held equipment and power tools, or machine grubbing. In less environmentally sensitive areas use of heavier machinery may be acceptable.
- *Vachellia farnesiana* can only be selectively removed on 500ha per land holding per year,
- The area to be treated as part of this plan must be returned to native groundcover (as defined under the Native Vegetation Act 2003) - i.e. this process cannot be used for conversion of native groundcover to either exotic pasture or crops.

4.2. A satisfactory management program is detailed in the VMP and adequate maintenance will be implemented at the expense of the land manager, and

4.3. Any approvals required from other authorities have been obtained before removal of *Vachellia farnesiana* has occurred.

#### **4. Review Committee Determination**

The Review Committee has determined that the species *Vachellia farnesiana* is eligible to be listed as a feral native plant species in the area identified above in 3, with the management conditions below.

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Signature Chair (Committee  
member 1)

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Signature Committee  
member 2

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Signature Committee  
member 3

**5. Reasons for the Review Committee decision**

**6. Management conditions (if any) that may restrict how clearing of the species may be undertaken**