



Department of
Primary Industries and
Regional Development

Protect
Grow
Innovate

Noogoora Burr Plan

2026 – 2031



Cover photograph

Noogoora burr (*Xanthium strumarium*) in Yanchep National Park (photo credit to Department of Biodiversity, Conservation and Attractions).

Version

June 2026



Noogoora burr flowering plant

Important Disclaimer

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Noogoora burr covering a stream

Introduction

Noogoora burr (*Xanthium strumarium* also known as *X. occidentale*) is an invasive weed that poses a threat to the wool industry, irrigated agriculture and river and wetland ecosystems, due to its adaptability and capacity for rapid spread.

The Department of Primary Industries and Regional Development (DPIRD) has been involved in managing Noogoora burr infestations in Western Australia (WA) since the mid-1970s, with the main aim of protecting the wool industry from its impacts.

Currently, in the northern parts of the state, containment is considered the only feasible management option as the weed is widespread and established, while isolated infestations in the south are potentially eradicable. However, as the full extent of some of the infestations is currently unknown, the management aims may need to be revised.

This 5-year plan outlines the activities to be undertaken by DPIRD to support the containment and/or eradication of current Noogoora burr infestations.

DPIRD will continue to collaborate with key stakeholders including landholders, local governments, recognised biosecurity groups (RBG), community and landcare groups, industry groups and the Department of Biodiversity, Conservation and Attractions (DBCA), to implement this plan.

Aim

- Contain established populations of Noogoora burr within the Kimberley region.
- Eradicate localised infestations, where possible, across the rest of the State.

Governance

Landholders are responsible for managing pests on their land, while DPIRD is responsible for protecting WA's agricultural resources from biosecurity threats under the *Biosecurity and Agriculture Management Act 2007* (BAM Act) and associated regulations.

The Invasive Species Operations section leads the implementation and reporting on this plan. The Invasive Species Planning section will evaluate this plan in 2031.

New detections will be managed in accordance with this plan.

Important links

- [Noogoora burr and its control - DPIRD](#)
- [Noogoora burr - Weeds Australia](#)
- [Noogoora burr - *Xanthium pungens* - QLD Fact Sheet](#)

Report sightings via:

- An online report at mypestguide.dpiird.wa.gov.au or
- Use the MyPestGuide reporter app, or
- Phone: (08) 9368 3080, or
- Email Pest and Disease Information Service (PADIS): padis@dpiird.wa.gov.au

Context

The problem

Noogoora burr is a member of the Asteraceae (daisy) family¹. It is an annual herb, native to the western United States of America, Mexico and the Caribbean.

Growing up to 2.5 metres high (occasionally 4 metres), the plant has dark green grapevine shaped leaves, with jagged edges and prominent veins. Green, inconspicuous flowers turn into spiny burrs 10-20mm long which go brown when mature (Figure 1). Seeds are located in the burrs.

As a summer growing plant, germination is usually between August and December in temperate climates and during the wet season (December to March) in the northern parts of WA.



Figure 1 – Noogoora plant with burrs

Invasive characteristics include:

- staggered germination with each burr containing 2 seeds, 1 that germinates in the following season, and 1 that can remain dormant for 2 or more years, taking advantage of occasional rainfall or flooding to germinate.
- ability to produce many burrs, with a single plant capable of producing as many as 11,000 burrs.
- spiny burrs that are readily spread via water or attaching to people, animals (sheep, cattle, feral pigs, native animals and birds), equipment and agricultural produce.

¹ Noogoora burr is a complex species which includes the variants *X. strumarium*, *X. californicum*, *X. cavanillensis*, *X. italicum*, *X. orientale* and *X. pungens*. Four closely related species (Noogoora, Hunter, South American and Californian burr) are generally referred to as Noogoora burr.

- seeds that can remain viable up to 7 years, so a control site must be monitored for at least 7 years after the weed is considered eradicated.
- an extensive root system and rapid growth rate.
- allelopathic traits, with the plants containing chemicals that reduce the growth of surrounding vegetation.

The weed impacts agriculture by:

- competing with palatable plants, summer crops (especially irrigated soya beans, maize, sunflowers, and cotton) and pastures for moisture and nutrients leading to reduced yields;
- producing burrs that can:
 - cling to livestock, making handling difficult and causing physical injury to both people and livestock;
 - impede shearing; and
 - contaminate wool, significantly reducing the value of wool due to increased processing costs.
- being poisonous, especially seedlings, to livestock, particularly horses and pigs, but sheep and cattle can also be affected.

The weed also chokes riverbanks and wetlands, creating a monoculture and reducing native biodiversity.

Legal status

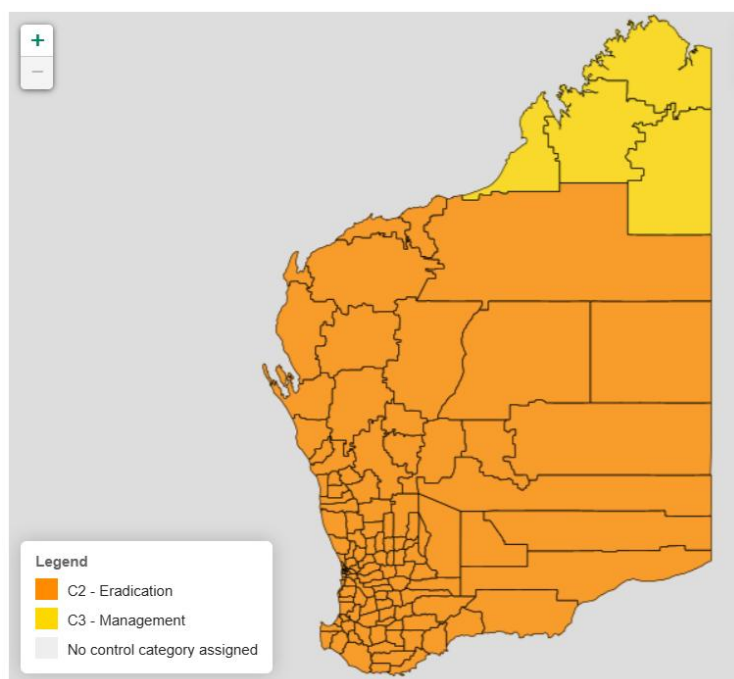
Noogoora burr is a declared weed under section 22(2) of the BAM Act and associated regulations for the whole of WA, and is assigned to control category:

- 'C3 – Management' in the shires of Wyndham-East Kimberley, Halls Creek, Derby-West Kimberley and Broome where it is considered too well established to eradicate and containment is the expected management outcome; and
- 'C2 – Eradication' for the remainder of the state (Figure 2) (Western Australian Organism List DPIRD).

The C2 control eradication category assigned to some areas may need to be reviewed if eradication is no longer considered a feasible outcome.

It is an offence under WA legislation to sell or transport produce or other material contaminated with declared pest plants.

All landholders have a legal obligation to control a declared weed species under the BAM Act and must report the presence of Noogoora burr to DPIRD before undertaking control. If obligations are not met, DPIRD will consider compliance actions.



*Figure 2. Declaration areas of Noogoora burr under the BAM Act.
Western Australian Organism List (WAOL) | DPIRD*

Distribution

Noogoora burr was first noticed in Australia on Noogoora Station, Queensland, in the 1870s, where it was probably introduced as a contaminant of cotton seeds. It has since spread over much of Queensland and New South Wales with infestations also occurring in Victoria, South Australia, the Northern Territory and Western Australia with the total infested area in Australia exceeding 2 million hectares (Figure 3).



Figure 3 – Distribution of recorded historic and current Noogoora burr outbreaks in Australia (DPIRD data, Atlas of Living Australia 2026)

Distribution in WA

Noogoora burr has been detected across WA, including the Kimberley region (first recorded in 1974 along the Ord River), in the Perth metropolitan area (Nedlands in 1949) and in the southwest region (Manjimup in 1957). Many other infestations have been detected over the years, most of which have been eradicated (Figure 4).

Noogoora burr is widespread and established throughout the east and west Kimberley region, mainly along the Ord and Fitzroy rivers.

In 2018, the burr was detected in the Pilbara region along the lower catchment areas of the De Grey and Ridley rivers. In 2019 isolated plants were detected at the top of the De Grey River catchment, on the Oakover River some 300km upstream at a popular tourist campsite. Since then, it has been detected at various sites along the De Grey River. The original source of this infestation is thought to be through movement by travellers into the region, as it was first detected at the De Grey River 24-hour rest area on Great Northern Highway. It is currently contained within the De Grey River catchment.

There is a very high risk of continued spread from the Kimberley region, and parts of the northeast Pilbara region, via cattle, feral and native animals, birds and travellers moving from this region to other parts of WA.

Currently, in the Perth metropolitan area, there are 4 known active sites, Yanchep National Park, Lake Joondalup, Lake Gwelup and Carine Regional Open Space. The extent of the Yanchep site would suggest that the weed had been undetected for some time, and it is likely the nearby Joondalup, Lake Gwelup and Carine sites are a result of this infestation.

Parryville, detected in May 2022, near the town of Denmark, is the only current known infested site in the southwest of WA. The source of this infestation is unknown but may be from travellers or birds.



Noogoora burr flowers

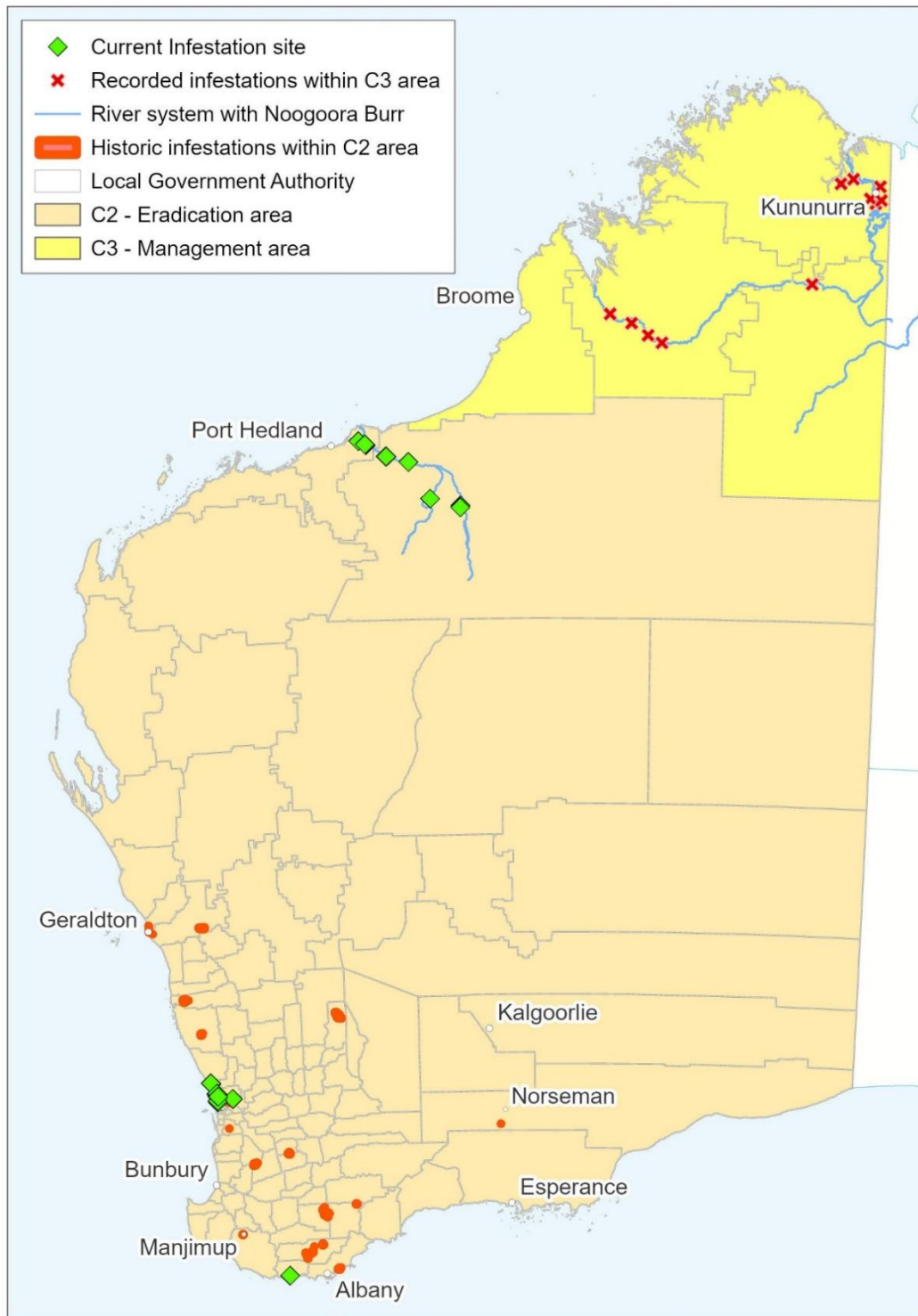


Figure 4 – Historic² and current Noogoora burr sites in WA

Table 1 summarises the current infested sites and their management status.

² Previous sites where Noogoora burr has been eradicated include: Albany (1993), Boddington (1995), Broomehill (1993), Chapman Valley (2000), Coorow (1993), Cuballing (1997), Dandaragan (1993), Geraldton (1994, 2013), Gnowangerup (1993, 2000), Manjimup (1957), Midland (2009), Mt Barker and surrounds (1993), Mukinbudin (1993), Norseman - Bromus Dam (1991) and Serpentine (1995).

Table 1 – Current status of known Noogoora burr sites in WA

Site (Detection date)	Land ownership	Status	Expected eradication date
Management area – C3			
Kimberley region – Ord and Fitzroy river catchments			
Ord River (1974) Fitzroy River (1982) Nicholson River (1983) Lower Ord (1993) Sturt Creek (1991) Wyndham/ Lake Argyle/ Moochalabra Dam (2000)	Private pastoral leaseholders	Established along these rivers and their tributaries and spreading. Eradication is not considered feasible in this region. Landholders manage their own control activities.	n/a
Eradication area – C2			
Pilbara region – De Grey River catchment			
Lower catchment & De Grey River rest area (2018) Upper De Grey catchment – Oakover River, Carawine Gorge (2019) Mid catchment – De Grey River crossing (2020)	Private pastoral leaseholders Main Roads WA (MRWA)	Currently under eradication through a coordinated program with the Pilbara Mesquite Management Committee, pastoralists, MRWA and DPIRD. Lower catchment – largest infestation and now being detected in areas beyond the customary riparian zones due to flooding. Upper catchment – number of plants is relatively low but has spread further downstream with scattered plants detected mid-catchment. Challenges include the scale of the infestation and only a few land managers to address the issue.	TBD - dependent on funding
Perth Metropolitan region			
Yanchep National Park (2015)	DBCA	Approx. 60 ha (across 3 sites) infested and under eradication by DBCA. Eradication difficult due to site accessibility issues.	TBD
Lake Joondalup (1984)	DBCA	4 small sites under eradication by DBCA.	TBD
Lake Gwelup (May 2023)	City of Stirling	1 plant detected. Well underway to eradication. Friends of Lake Gwelup very active.	2030
Carine Regional Open Space (2026)	City of Stirling	1 small infestation treated and under eradication by City of Stirling.	2033
Southwest region			
Parryville-Denmark (2022)	DBCA/Shire of Denmark	2 main sites under eradication by DBCA and the Denmark Shire supported by DPIRD.	2034

Control methods

Noogoora burr is best treated before it sets seed each year. The following methods can be used to control the weed.

Mechanical / manual removal

Manual removal by hand, hoeing or chipping is only feasible for a sparsely populated situations or when plants are small.

Burning is also effective in some situations but requires a very hot fire with sufficient fuel load.

Herbicide

There are several herbicides that can effectively be used to control the weed. Further detail on herbicides can be found on DPIRDs website ([Noogoora burr and its control](#), 2024).

Biological control

Noogoora burr was one of the first weeds to be systematically targeted by biological control. The 2 major phases in the Australian program were in 1929-40 and 1953-75. Neither resulted in having a significant impact. Further biological control was attempted in 1974 and 1980 using a rust fungus, *Puccinia xanthii* and the stem-galling moth, *Epiblema strenuana*, both having limited effect in northern WA. Further work is being conducted to develop biological controls.

Disposal methods

It is important to remove and destroy all plant material by bagging, deep burial or burning to prevent seed set.

Prevention

Education and awareness

Signage has been erected at some infestations sites and areas of high visitation where the movement of livestock and travellers is prevalent, with the aim of raising awareness of the weed and how to prevent its spread.

Pathway identification

Control needs to consider where the weed may have come from and if that pathway may have also spread it further, with the aim of negating the pathway.

Movement controls

Preventing movement of seeds to non-infested sites, by restricting movement of livestock and vehicles from an infested area and/or checking livestock moving to saleyards or to producers (not for animals direct to abattoirs or export) from infested areas are management considerations.

Actions

Action	Task
Management area C3	
Kimberley region	
Audit	Technically assess whether current actions sufficiently mitigate the risk of spread from the Kimberley to the southwest by livestock to inform potential amendments to this plan.
	Consult with cattle industry stakeholders in respect to mitigating the risk of spread from the Kimberley to the southwest by livestock to inform potential amendments to this plan.
	Assess the option of cattle inspection protocols at the Broome saleyards for transportation from the Kimberley region to saleyards or producers outside the region as an effective mitigation measure.
	Consider statewide declaration of Noogoora burr in light of conclusions from the audit.
Increase awareness	Increase travellers' awareness of the weed, through targeted communication via: - various online media platforms, and - signage at campgrounds, tourist spots, fishing areas, requesting people check for burrs before leaving an infested site.
	Increase awareness within key industry groups, Kimberley Rangelands Biosecurity Association (KRBA) and Kimberley Pilbara Cattleman's Association (KPCA) about the importance of checking livestock and vehicles prior to leaving the Kimberley region, and upon arrival at destination.
Detect	Undertake annual surveillance at high-risk sites such as saleyards, abattoir holding sites, truck stops, tourist rest stops and bush camping sites.
Report	Document reports provided by land managers/landholder groups annually to monitor and report on newly detected infestations.
Treat	Treat any new detections at high public visitations, while on site if possible.

Action	Task
Eradication area – C2	
Across WA in general	
Detect and delineate	Inspect sites when reported through Pest and Disease Information Service (PaDIS) and MyPestGuide to confirm detections and determine extent of infestation.
	Undertake annual routine surveillance at high-risk sites during the dry season, and 2 to 4 weeks after a rain event including high visitation areas (tourist camping sites, fishing spots, 24-hour rest areas, cattle truck stops) and historic sites where the burr has previously been detected (refer to Figure 4, footnote 2).
	Undertake tracing if new infestation found to identify potential point of origin and if the pathway can be negated.
Review legislation	Assess C2 declaration status for sites where Noogoora burr appears to be established.
Plan	Work with land manager/s to develop an eradication plan for any new detection site/s.
Treat	Work with land manager/s to undertake treatment and control at site/s.
Declare area freedom	Where a site-specific eradication plan is implemented, if no evidence of the weed for 7 consecutive years after the last treatment, declare the area free from Noogoora burr.

Site	Action	Task
Perth metropolitan region		
Yanchep National Park	Audit	Undertake an assessment of the infestation to determine status and the feasibility of eradication at the Yanchep site.
	Plan	Support DBCA in developing an approved management plan outlining the activities required to meet the expected eradication targets or management outcomes.
	Detect and delineate	Provide advice and where applicable support DBCA to undertake surveillance of other nearby wetlands to ensure burr has not spread further.
		Review signage and install additional signage where required to encourage public reporting of detections.
		Use various media platforms to inform the local community about the weed and its impacts with the aim of reducing its spread.
	Treat	Provide advice on the retreatment of the site as required.
	Monitor	Undertake annual audits of the sites to assess the effectiveness of the control activities being undertaken.
	Report	Seek annual reporting from DBCA outlining progress towards eradication.
	Declare area freedom	Where a site-specific eradication plan is implemented, if no evidence of the weed for 7 consecutive years after the last treatment, declare the area free from Noogoora burr.
Lake Gwelup, Carine Regional Open Space and Lake Joondalup	Detect and delineate	Review signage and install additional signage if required to encourage public reporting of detections.
		Provide advice and where applicable support the local government and local community groups to undertake surveillance of other nearby wetlands to ensure the weed has not spread further.
	Plan	Work with land managers to develop eradication plans for sites with an estimated timeframe for eradication.
	Treat	Support City of Stirling, DBCA and interest groups in treating infestations.
	Monitor	Undertake an annual audit of the sites to monitor and retreat, if necessary, for a period of 7 years from last treatment date.
	Report	Seek annual reporting from land managers outlining progress towards eradication.
	Declare area freedom	If no evidence of the weed for 7 consecutive years (per site) after the last treatment, declare the area free from Noogoora burr.

Site	Action	Task
Southwest region		
Parryville	Treat	Support DBCA and local government to treat and remove all weed material to prevent seed set and undertake follow up control as required.
	Monitor	Work with land managers to undertake annual surveillance of the sites to confirm no plants present for a period of 7 years from last treatment date.
	Report	Seek annual reporting from DBCA outlining progress towards eradication.
	Declare area freedom	If no evidence of the weed for 7 consecutive years after the last treatment, declare the area free from Noogoora burr.
Pilbara region		
De Grey River catchment	Audit	Undertake an assessment of infestation to determine status and feasibility of eradication in this area.
	Plan	Where eradication remains feasible, support the preparation of an eradication plan with Pilbara Mesquite Management Committee (PMMC) and other stakeholders.
	Detect	Increase travellers' awareness, through targeted communication via various media platforms and signage (at campgrounds, tourist spots, fishing areas), requesting people check their equipment and clothes for burrs before leaving a site to reduce the risk of spreading the weed.
		Increase awareness within key industry groups, Pilbara Regional Biosecurity Group (PRBG), PMMC and Kimberley-Pilbara Cattleman's Association (KPCA) on the importance of checking livestock and vehicles prior to leaving the Pilbara region, or on arrival at destination.
		Undertake routine surveillance each year at high-risk sites.
	Treat	Provide advice and guidance on weed controls to pastoralists, working with the PMMC, Main Roads WA and the PRBG.
	Monitor	Undertake annual audits of the infested sites to assess the effectiveness of the control activities being undertaken.
	Report	Collate annual reporting from key stakeholders on progress towards eradication.
	Declare area freedom	Where a site-specific eradication plan is implemented, if no evidence of the weed for 7 consecutive years after the last treatment, declare the area free from Noogoora burr.