

PROJECT PHOENIX



AUSTRALIAN NATIVE SEED PRODUCTION IN 2021



PROJECT SUMMARY

JUNE 2021

Across all of our Project Phoenix activities and actions we pay respect to the Traditional Owners and Custodians of the lands and waters on which we work. We honour the resilience and continuing connection to country, culture and community of all Aboriginal and Torres Strait Islander people across Australia. We recognise the decisions we make today will impact the lives of generations to come.

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CONTENTS

EXECUTIVE SUMMARY	5
About the project	5
Scope	5
Introduction	6
Issues	7
Comments	7
Key outputs	7
Outcomes	7
Findings	8
Evidence	9
RECOMMENDATIONS.....	10
WANT TO KNOW MORE?	12



EXECUTIVE SUMMARY

About the project

The project maps and quantifies baseline industry participation in Seed Production Area management that supports broad scale restoration nationally. This will provide a point in time study of what the national industry looks like in 2021.

Scope

This project investigated:

- the current capacity of Seed Production Areas (SPAs) and
- how to build the capacity of SPAs.

SPAs were defined as:

- including Australian native species
- planted or direct-seeded
- established for native vegetation restoration or re-establishment purposes and
- having known and documented seed origins.

It was preferred in the project that SPAs were genetically diverse. That is, the preference was for plants for the SPA to be sourced from more than one source. The extent to which this was achieved was recorded. Forestry-related SPAs fell out of scope, as their plants were bred for certain commercial traits, compared to restoration SPAs which aimed to retain the genetic diversity of wild populations.



Introduction

The Australian native seed industry currently relies heavily on wild stands and faces issues of genetic bottlenecks. For many years, seed production areas (SPAs) have been recommended as a means of ensuring the genetic diversity of Australian plants, and a way to ease pressures on wild populations. However, Australia's seed production area sector is ad hoc, with no coordination and currently unknown capacity.

This project aimed to understand the capacity of Australia's SPAs and how they might best be supported to grow their capacity.

It did so by undertaking a search for seed production areas nationwide and surveying them. The project consisted of 12 stages:

1. Negotiating the agreement
2. Recruiting a project officer
3. Developing and agreeing on scope approach, timelines, costs etc.
4. Entering into a formal agreement
5. Commencement of Project Officer
6. Developing survey design, data collection methods, stakeholder engagement plan
7. Work with NRM regions to approach individual regions to identify contacts in each region
8. Contact
9. Interviewing all contacts and gather SPA information required
10. Compiling data
11. Drafting report, including maps and recommendations as required, Provide to GA for feedback
12. Incorporating feedback and submit final report, including presentation as required.



Issues

There were several issues with this project:

- The activity commencement was delayed due to the time taken in negotiating the agreement, contract terms and scope, and then recruiting a project officer. This put the activity timelines behind by three weeks from the beginning.
- The survey design process took longer than expected (five weeks). This process clashed with the Christmas break period and relied on feedback from internal and external stakeholders.
- The project officer was ill for one week, further delaying the project.
- These delays caused some project timeline slippage and an additional project officer was engaged to assist to help get the project back on track.
- The project would have benefited from more time to enable a more comprehensive dataset. It was identified that there are some SPAs that exist, that are not included in the dataset, due to time constraints. Some SPA managers refused to participate due to fears that the information was intellectual property that may be used by market competitors.
- An online survey was designed. However, as the SPA managers were contacted, it became evident that phone interviews with the data being captured into an Excel spreadsheet was the most efficient method.

Comments

Not applicable

Key outputs

This project produced three outputs:

1. report detailing findings and recommendations, *Australian native seed production in 2021*
2. data collected through the process
3. GIS map of SPAs surveyed by postcode.

Outcomes

This project achieved the following outcomes:

- The current capacity of SPAs Australia-wide was determined.
- Strategies to support the establishment, maintenance and expansion of SPAs were identified.
- An assessment of the successes and failures in SPA continuity was undertaken.



Findings

The survey found that SPAs would likely contribute 5.5 tonnes of seed per annum to the native seed sector. It also found that 4,125kg (70%) of this seed is used for in-house restoration projects, with 1,650kg (30%) available for external supply.

The financial capacity of SPAs is fragile at best. This is leading to labour shortages, job insecurity, organisational knowledge loss, and SPA degradation and even disbandment. The low financial viability of Australia's SPAs is likely caused by low seed prices, overall uncertainty and a lack of market demand. Their very small sizes (an average of 2.7 hectares) is likely also a contributor. Some SPAs are multi-use as a means of obtaining funds from other sources.

An analysis of SPA barriers, success factors and industry-wide support ideas found that many SPA managers would benefit from greater access to knowledge, through both networking and access to experts. Research in the area was also desired.

Only 1.5% of SPAs were managed by First Nations managers. With SPAs a form of land management seeking environmental outcomes, First Nation land management is key to achieving these. Any SPA strategy should see the majority of SPAs having cultural authority or cultural licence to operate. This is likely to increase the probability that both specific and broad scale environmental outcomes will be achieved.

Ensuring both economic and environmental outcomes of SPA development involves the balancing of ever-evolving factors, including:

- ecological outcomes of revegetation vs habitat protection
- government funding programs and regulations surrounding revegetation
- lack of incentives in the native seed market
- lack of support for private enterprise in the SPA market
- SPAs' need for supply to match demand, so as not to overharvest wild stands and
- small private landholder seed user versus large-scale corporate or government seed users.

Other findings included:

- Of all government levels, local governments are taking on the most onus for securing seed production, with the greatest amount of government-funded SPAs coming from this sector of government.
- Seed permit systems were deemed confusing, and contrary to assumptions.
- Most SPAs used CSIRO guidelines in their operation.
- SPAs are unlikely to contribute to a greater diversity of species in the market.



Evidence

Refer to full report *Australian native seed production in 2021* for full references.

RECOMMENDATIONS

Any actions based on the following recommendations should seek feedback in the Northern Territory, Tasmania, Western Australia and South Australia.

RECOMMENDATIONS	
	<p>Develop a system of collecting and having publicly accessible data on regional seed demand and supply. This will mitigate against some supply and demand risks in SPA development.</p>
	<p>Facilitate communication, networking and information sharing among SPA managers and other stakeholders.</p>
	<p>Establish an industry body for seed production areas.</p>
	<p>Develop seed regulations and a certification system to ensure seed quality and increase the competitiveness of SPAs.</p>
	<p>Identify current and future native seed demands, match this against current SPA capacity and identify areas for the establishment of SPAs.</p>
	<p>Develop a system that encourages or requires the use of certified native seed in restoration projects.</p>
	<p>Government acknowledgement and financial investment into First Nations systems of land management in the seed industry.</p>



RECOMMENDATIONS

 8	Increase the percentage of SPAs that have cultural authority or cultural licence to operate.
 9	Acknowledgement and protection of agricultural heritage sites as the UN defines them.
 10	Build long-term financial capacity in the SPA sector by slowly building consistent market demand for native seed, with support for SPA development to match.
 11	Support SPA engagement and partnerships with Crown land authorities or private landholders with formal facilitation.
 12	Ensure there is equal support for private SPA enterprises as well as publicly funded SPAs.



WANT TO KNOW MORE?

For further information read the full report *Australian native seed production in 2021*.

Related projects

- *Revealed! The National Native Nursery Network*
- *Join the National Seed Network!*

This project contributes to the evidence base for a ten-year strategy to guide the native seed and landscape sector. The document, which is untitled until endorsement in September 2021, is referred to as the Strategy in all Project Phoenix publications.

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