

Using seed production to enhance restoration outcomes



State of the Nation Report 2011

Biodiversity

Most pressures on biodiversity that arise directly or indirectly from human activities appear to still be strong



Australia can improve its biodiversity management significantly

State of the Nation Report 2011 Biodiversity



Despite promising investment by all jurisdictions in addressing the main pressures on biodiversity, pressures are not being substantially reduced, nor is the decline in biodiversity being arrested or reversed

Why is there a need for seed production?

The decline of ground-layer communities across Australian agricultural regions ensures they are among our most threatened ecosystems

The limited availability of large quantities seed is a major restriction to their restoration



Integrating the benefits of restoration

Markets

- Carbon Farming Initiative
- Bio-Banking
- Offsets

Production

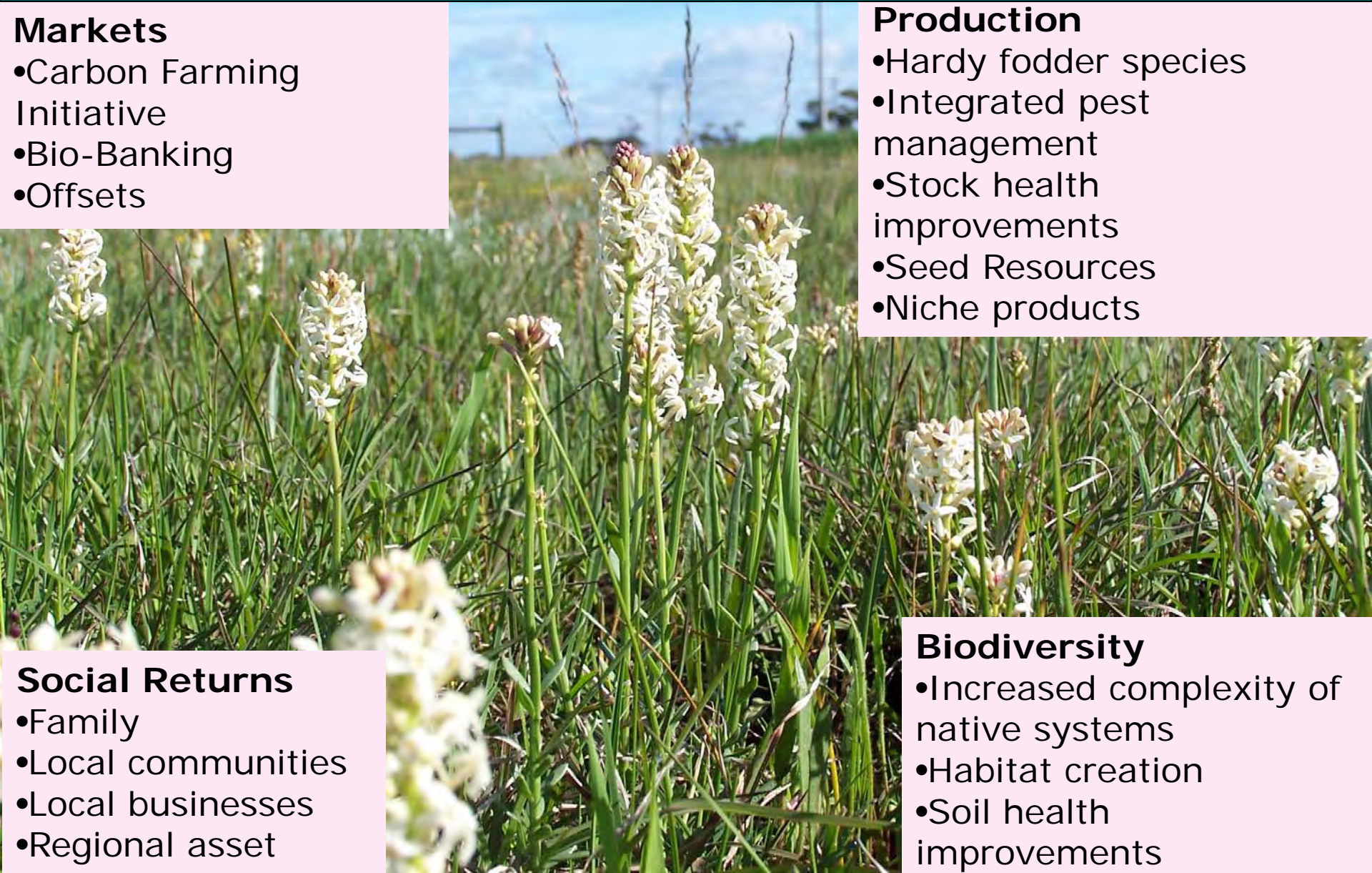
- Hardy fodder species
- Integrated pest management
- Stock health improvements
- Seed Resources
- Niche products

Social Returns

- Family
- Local communities
- Local businesses
- Regional asset

Biodiversity

- Increased complexity of native systems
- Habitat creation
- Soil health improvements





Strzelecki Desert

New South Wales

Blue Mountains

Sydney

Gundagai NSW, Australia

Canberra

Australian Alps

Victoria

Melbourne

Image Landsat
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Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google earth

Imagery Date: 4/10/2013 33°31'41.97" S 148°55'36.21" E elev 704 m eye alt 1510.30 km



Coolamon

Junee

Wagga Wagga

Forest Hill

Uranquinty

The Rock

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Image © 2014 CNES / Astrium

Google earth

Imagery Date: 1/29/2014 35°02'06.51" S 147°25'04.13" E elev- 236 m eye alt 76.04 km



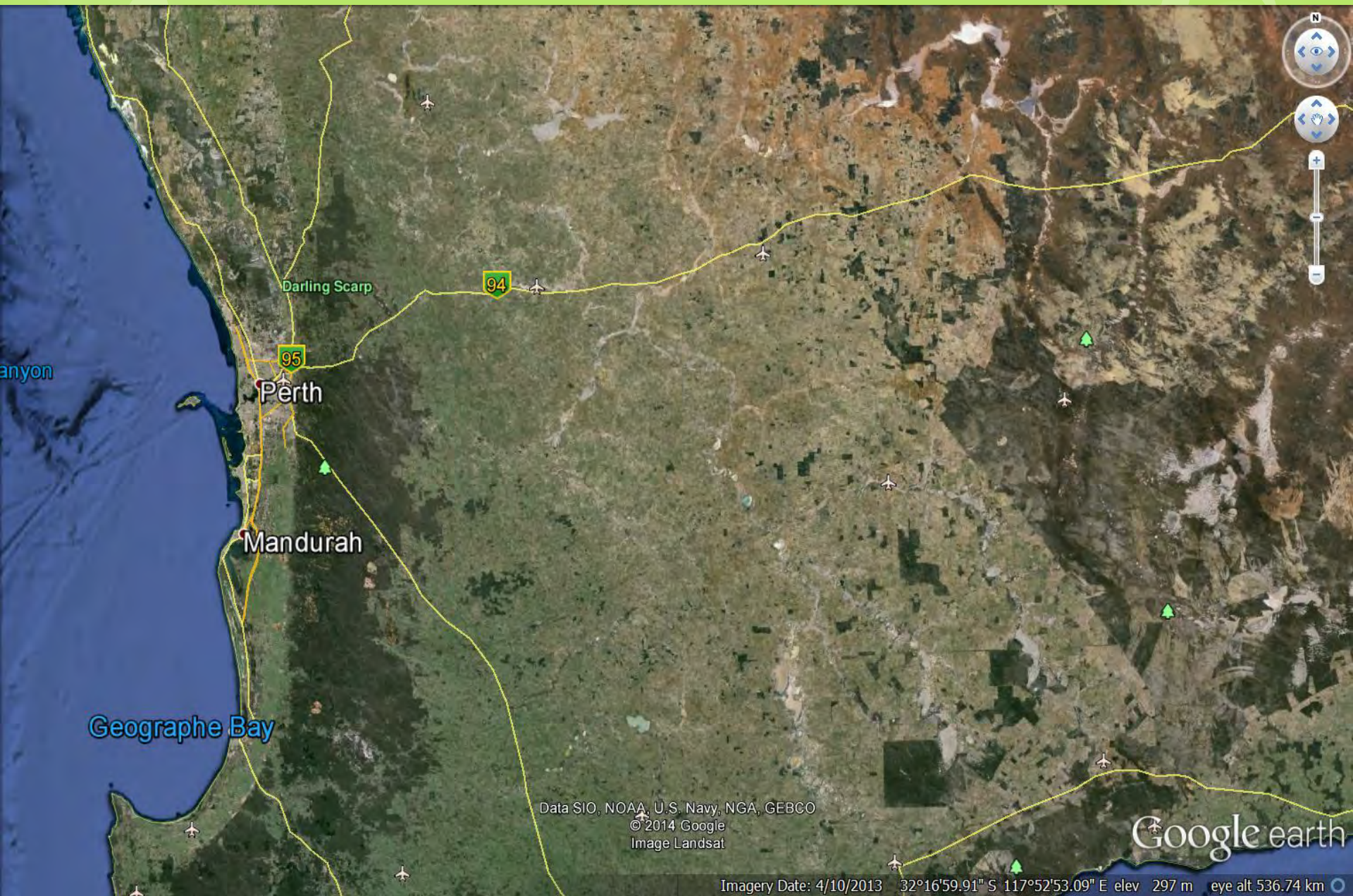
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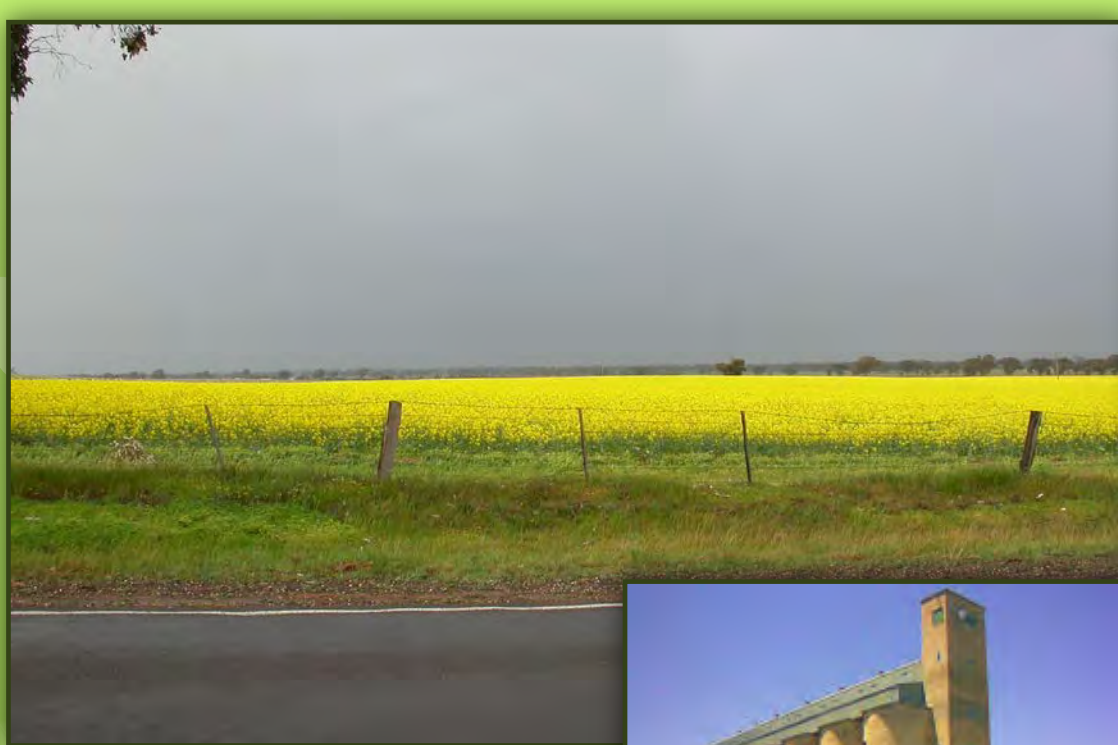
2006

Imagery Date: 1/3/2013 35°06'12.09" S 148°02'53.74" E elev 214 m eye alt 2.62 km

Google earth

WA Wheat belt?







Seed in sufficient volumes from a range of species is critical to restoring complex communities



Seed Production may offer a solution



Some of Benefits

- Most (but not all) species are easy to propagate and grow
- Most (but not all) GL species produce seed within one season
- Many produce copious amounts of seed
- Numerous genetic individuals can be grown in a small area
- Seed can be stored – a particular species only need be grown every few years

Some of the Benefits

- Increases seed volumes
- Increases species range
- Improves reliability of seed production
- Increases efficiency of harvest
- Can be relatively low cost
- Is technically straight forward



Some of those using seed production to
enable biodiverse restoration





Werribee Open Range Zoo



Liz Fenton - Hamilton



John Delpratt – Melbourne University



Melbourne University



Steve and Rhonda Labroque- Horsham

