

Industry update

January 2019



Current projects



Invested in RD&E
October-December 2018



Committed to RD&E from 1 July 2018

Upcoming events

18 February	AgriFutures™ Pasture Seeds Program Advisory Panel meeting
19-20 February	evoke ^{AG} , Melbourne
1 March	AgriFutures™ Horizon Scholarship applications close
March	Profitable and environmentally sustainable subclover and medic seed harvesting regional workshops - WA, SA and NSW.

AgriFutures™ Pasture Seeds Program Advisory Panel

- Lisa Anderson (Chair)
- Joe Cook
- Brian Fields
- Dr Mary-Jane Rogers
- David Brown
- Annelies McGaw (AgriFutures Australia Manager, Research)

Project spotlight (complete): Capitalising on the discovery of Messina for the pasture seeds industry

Neptune messina – an annual pasture legume for moderately saline waterlogged soils

Principal Investigator: Ross Ballard

Research Organisation: SARDI

Project ID: PRJ-009886

Messina (*Melilotus siculus*) is a new annual pasture legume with unprecedented tolerance of both waterlogging and salinity. Messina is also an outstanding seed producer and is suitable for grazing. Best grown in regions receiving greater than 400mm annual rainfall, the legume is able to stand up to several weeks of waterlogging once established. It is known to produce more biomass than other pasture legumes recommended for saline land, such as early season balansa clover and burr medic, which can offer opportunities to increase stocking rates following establishment in a pasture. Another benefit of Neptune Messina is that it can supply fixed Nitrogen (N) to N-deficient salt-land soils which is known to significantly increase production of grasses and herbs. Some economic studies have even showed that complementing current salt-land based pastures with an adapted legume such as Neptune Messina can increase returns from pasture by up to \$60/ha. The aim of this recent study was to determine herbicide tolerance, pH sensitivity and the role of seed treatments for Messina.



Top: Characteristic leaf of Neptune Messina
Bottom: Stand of Neptune Messina

Project spotlight (current):

Profitable and environmentally sustainable sub clover and medic seed harvesting

This project will comprise a team with skills in agricultural engineering, pasture agronomy and breeding and plant physiology. The project will support an engineering PhD student to work with a range of leading seed growers and pasture seed companies in WA, SA, NSW and Victoria to develop innovative solutions to increase subterranean clover and annual medic seed harvesting efficiency and reduce environmental impacts.

The ideas and experiences of seed growers and agronomists will be captured in workshops. The aim is to develop solutions that can be adopted on different soil types across the main seed growing regions. The project will mainly focus on subterranean clover, as it has the largest seed industry, but many principles will also apply to annual medics.

This project aims to overcome the environmental damage caused by suction harvesting of subterranean clover and annual medic seeds.

Specific project objectives are to:

- Assess and identify engineering recommendations for modification of current harvesting machinery to improve harvesting efficiency and environmental outcomes.
- Identify design recommendations for the development of a new prototype harvesting machine that will further improve harvesting efficiency and environmental outcomes.
- Develop agronomic and soil management packages to reduce soil erosion prior to, during and following seed harvesting.

Workshop dates

6 March 2019, Pingelly WA

12 March 2019, Naracoorte SA

14 March 2019, Corowa NSW

Contact

Dr Phillip Nichols: phillip.nichols@uwa.edu.au

Current projects

Improved subterranean clover seed production from multiple disease resistance

Principal Investigator: Martin Barbetti

Research Organisation: University of Western Australia

Expected Completion Date: 20 December 2018

Project ID: PRJ-009839

Lucerne Seed Wasp management

Principal Investigator: Ainsley Seago

Research Organisation: NSW Department of Primary Industries

Expected Completion Date: 31 January 2019

Project ID: PRJ-010449

Potential exotic virus threats to Lucerne seed production in Australia

Principal Investigator: Ralf Dietzgen

Research Organisation: The University of Queensland

Expected Completion Date: 31 March 2019

Project ID: PRJ-009751

Molecular markers for cultivar ID and seed certification in pasture legumes

Principal Investigator: Kioumars Ghamkhar

Research Organisation: Ag Research Limited

Expected Completion Date: 15 May 2020

Project ID: PRJ-009750

Ensuring Lucerne seed production in the absence of bees

Principal Investigator: John Hamblin

Research Organisation: University of Western Australia

Expected Completion Date: 31 July 2020

Project ID: PRJ-010875

Lucerne Variety Trial – Assess optimum plant stress levels for seed production

Principal Investigator: Jenny Aitken

Research Organisation: Lucerne Australia Inc.

Expected Completion Date: 30 September 2021

Project ID: PRJ-010959

Profitable and environmentally sustainable sub clover and medic seed harvesting

Principal Investigator: William Erskine

Research Organisation: University of Western Australia

Expected Completion Date: 2 April 2022

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agrifutures.com.au/pasture-seeds