Emerging leaders in ag

Applications are now open for the Australian Rural Leadership Program (ARLP). The ARLP is a 15-month leadership development program that takes places over five sessions across Australia and Vietnam.

Over 30 $50,000 scholarships are available for people working in or wanting to contribute to the development of rural, regional and remote Australia and AgriFutures Australia is pleased to sponsor a ARLP recipient in Course 27 and welcomes applications from its industries.

If you’re interested in putting forward an application please speak with Annelies (annelies.mcgaw@agrifutures.com.au).

Apply now rural-leaders.org.au

Read more about past AgriFutures Australia ARLP recipients and the program agrifutures.com.au/ARLP

Project spotlight: Profitable and environmentally sustainable sub clover and medic seed harvesting

Project ID: PRJ-011096

Principal investigator: William Erskine

Research Organisation: The University of Western Australia

This project brings together a multi-disciplinary team from with skills in agricultural engineering, pasture agronomy and breeding, and plant physiology to overcome the environmental damage caused by suction harvesting of subterranean clover and annual medic seeds. The research team have engaged growers and agronomists in WA, NSW and SA in a series of on-farm consultations (resulting in case studies from seven subterranean seed growers in WA, southern NSW and the Naracoorte region of SA, and two annual medic seed growers in SA), workshops (in Pingelly, Naracoorte and Corowa with 52 growers and nine pasture seed company representatives) and surveys. Through this process, the team have captured the collective knowledge of the unique industry, including its history, and the associated challenges with harvesting, before embarking on the design phase of the three-year project.

Ultimately, the team are working towards developing a prototype harvester they have a few i’s to dot and a few t’s to cross before bringing out the welders. Using the grower case studies, surveys and workshop data the team have commenced the development a new annual operational plan and a literature review on the engineering opportunities.
### Current projects

<table>
<thead>
<tr>
<th>Project ID</th>
<th>Project Name</th>
<th>Finish</th>
<th>Principal Investigator</th>
<th>Research Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>PRJ-010449</td>
<td>Lucerne seed wasp management</td>
<td>11/03/19</td>
<td>Seago, Ainsley</td>
<td>NSW DPI</td>
</tr>
<tr>
<td>PRJ-009751</td>
<td>Potential exotic virus threats to Lucerne seed production in Australia</td>
<td>30/04/19</td>
<td>Dietzgen, Ralf</td>
<td>University of Queensland</td>
</tr>
<tr>
<td>PRJ-011917</td>
<td>Assessment of size and scope of the certified temperate pasture seeds industry</td>
<td>14/10/19</td>
<td>Lucas, Donna</td>
<td>RM Consulting Group Pty Ltd</td>
</tr>
<tr>
<td>PRJ-009750</td>
<td>Molecular markers for cultivar ID and seed certification in pasture legumes</td>
<td>15/05/20</td>
<td>Ghamkhar, Kioumars</td>
<td>AgResearch Limited</td>
</tr>
<tr>
<td>PRJ-010875</td>
<td>Ensuring Lucerne seed production in the absence of bees</td>
<td>31/07/20</td>
<td>Hamblin, John</td>
<td>University of Western Australia</td>
</tr>
<tr>
<td>PRJ-010959</td>
<td>Lucerne Variety Trial – Assess optimum plant stress levels for seed production</td>
<td>30/09/21</td>
<td>Aitken, Jenny</td>
<td>Lucerne Australia Inc.</td>
</tr>
<tr>
<td>PRJ-011096</td>
<td>Profitable and environmentally sustainable sub clover and medic seed harvesting</td>
<td>22/04/22</td>
<td>Erskine, William</td>
<td>University of Western Australia</td>
</tr>
</tbody>
</table>

### Project spotlight: Potential exotic virus threats to Lucerne seed production

**Project ID:** PRJ-009751  
**Principal investigator:** Dr Ralf Dietzgen  
**Research Organisation:** The University of Queensland

This project investigated ways to protect the Australian lucerne seed industry from the exotic alfalfa dwarf disease (ADD). ADD has had major negative economic impacts on lucerne production in Argentina and would be devastating to Australia and the production of lucerne seed and pastures.

This project developed tests to detect the five main viruses that cause the disease, to conduct spot surveys of lucerne seed and hay crops, to determine which of these viruses may be present in Australia. This research confirmed there is no evidence of ADD in Australia at this stage. There is however a risk of accidental introduction of the major exotic virus involved in the disease.

The project is now in its final stages, with a draft contingency plan for ADD in Australia based on the findings from data collected in Argentina. The project recommends that biosecurity measures should be put in place to prevent the introduction of the aphid-transmitted alfalfa leaf curl virus into Australia. Vigilance by growers and early detection will be key to keeping the industry safe from ADD.

### Project update: Lucerne Variety Trial Year 1 results

**Project ID:** PRJ-010959  
**Principal investigator:** Jenny Aitken  
**Research Organisation:** Lucerne Australia

Lucerne has been an important pasture species in Australia for over 40 years, and the cornerstone of the industry has been innovation through development and release of new varieties. These trials are investigating 29 commercial and pre-release lucerne varieties under modified irrigation management systems.

Promisingly year one results have shown a significant boost in seed yield when a delay in irrigation increased plant stress. Notably the trials found:

- Heritage 10 and SW18NPK91 were consistently the highest yielding seed varieties across all three watering strategies
- Delaying irrigation timings statistically increased seed yield. Under the trial conditions a 14% seed yield increase was observed across the moderate watering strategy.
- The highest yielding varieties for the high stress watering strategy were Heritage 10, SFR27-032, Silverland (D5), AR245, SW18NPK91 and SW18NPK92 which yielded between 0.652t/ha and 0.721t/ha.
- SW18NPK91 and Heritage 10 were the highest yielding varieties across the moderate stress watering strategy with clean seed weights of 0.789t/ha and 0.783t/ha respectively.

The full year one seed production report prepared by Lucerne Australia is available at agrifutures.com.au/pasture-seeds.