

Section Editor:
Nigel Wilhelm
SARDI, Minnipa Agriculture Centre

Farming Systems

Farming systems projects on Eyre Peninsula in 2014

Naomi Scholz

SARDI, Minnipa Agricultural Centre



There are three major farming systems projects currently being delivered on Eyre Peninsula;

- Maintaining profitable farming systems with retained stubble,
- Developing sustainable weed management strategies for

the long term viability of farming systems on the Eyre Peninsula,

- Eyre Peninsula Grain & Graze 3.

The projects are strongly linked, with information generated in one project being utilised by another, and vice versa. The following table provides a brief outline of each of the projects.

Title	Maintaining profitable farming systems with retained stubble	Developing sustainable weed management strategies for the long term viability of farming systems on the Eyre Peninsula	Eyre Peninsula Grain & Graze 3
Funder	GRDC	EP Grain Growers Rail Fund	GRDC
Partners	Lead: EPARF SARDI (delivery)	Lead: EPARF, LEADA SARDI (delivery)	Lead: SARDI (delivery) Rural Solutions SA (extension) EPARF, LEADA
Duration	5 years, end 30/06/2018	18 months, end 30/06/2015	3 years, end 30/06/2016
Area covered	Upper EP There is a LEADA project covering lower EP. Part of the GRDC Stubble Initiative, covering the southern grain growing region of Australia. 10 major grower group partners plus CSIRO.	EP	EP Other groups involved are Southern Farming Systems, East SA managed by Ag Excellence Alliance, BCG, and Mallee Sustainable Farming.
Aim	Increased knowledge and skills allowing farmers and advisers to improve farm profitability while retaining stubble in farming systems on upper Eyre Peninsula.	To examine a range of strategies to set up the region to tackle the threat of herbicide resistance in farming systems, and to examine longer term solutions that involve a range of new and emerging technologies (cultural, chemical and other).	Growers and advisors using processes, tools or packages to design and manage flexible mixed farming systems equipping them with the ability to adopt and respond to changing environment and market conditions to manage risk and generate profits.

<p>Topics to be addressed</p>	<p>The build-up of snails, mice and fungal disease carryover on cereal stubble and increasing in-crop weed infestation. Difficulty of establishing crops into medic pasture residue. Establishment of crops on non-wetting soils.</p>	<p>Management of Barley grass on upper EP and Annual rye grass on lower EP.</p>	<p>Grazing and better managed crops and pastures in the crop rotation and improving farm business decision making skills.</p>
<p>Trial/demo sites in 2014</p>	<p>Lock – Hentschke, comparing crop establishment based on time of sowing, sowing rate, position and depth on non-wetting sand. MAC – South 7, sowing into stubbles, height and in-row vs inter row. MAC – S3S, spray topping pastures. Mt Cooper – Gunn, establishment into pasture residues mown/worked/harrowed/nil. Link site: MAC Airport - crop sequencing</p>	<p>MAC – North 7/8, cross sowing, 6” nudge, pre-em herbicide. MAC – North 1, barley grass herbicide resistance testing, seed bank sampling, weed numbers counted. Minnipa – Heddle, windrows and chaff cart stubble dumps.</p>	<p>MAC – South 7, high vs low input and grazed vs ungrazed mixed farming systems trial. Collection of snail data for Stubble project. MAC - North 12, pasture options demo. Lock – Glover, flexible grazing options demo (cereals and vetch). Penong – Freeman, flexible grazing options demo (cereals).</p>
<p>Outputs to be delivered</p>	<p>Produce guidelines to control pests, weeds and diseases while retaining stubble to maintain or improve soil health, and reduce exposure to wind erosion.</p>	<p>Utilising 2 demonstration farms, develop and demonstrate whole farm weed management strategies.</p>	<p>A series of workshops, case studies, demonstrations and research articles to help growers manage risk and generate profits in mixed farming systems.</p>