BEVERLEY LAND CONSERVATION DISTRICT COMMITTEE (LCDC) TRIAL
A review of the 5-year randomised trial program of Field Crops

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What is in this IN

This **IN** presents an abridged version of the 5-year trial of a completely randomised design with three replicates and nine nutritional treatments, as conducted by Mr Bill Roy of Agricultural Consulting and Research Services Pty Ltd during the period 1997 to 2002. The crops in rotation were : Eradu **wheat** (1997), Pallinup **oat** (1998), Karoo **canola** (1999), Carnamah **wheat** (2000) and Calingiri **wheat** (2001).

RLF products were trialled along with eight others and the 5-year trial showed that RLF's program and products increased yield, on average, by **8.55%**. These results are worthy of revisiting as they demonstrate the beneficial results and consistency of RLF products over that of 'local practice' and over a great number of years.

This **IN** only reviews the results of the same base fertiliser programs to ensure 'like for like' results are compared. A more detailed report of the Trial is featured as part of RLF's series of Product Evaluation Reports and can be accessed at http://www.ruralliquidfertilisers.com/.

An Overview of the Trial

Based on the cumulative five-year results reported in the final report of Beverley LCDC, and the report of Mr Roy in Farming Ahead (No.125, May 2002), the following key conclusions were reached :

1. The RLF program was the only program amongst the eight 'alternative' programs that returned a higher profit when compared to the 'local practice'.
2. All other seven 'alternative' programs resulted in a net loss compared to the 'local practice' program.

Table 1 : The NPS input of the treatments that produced net profit over the 5-year trial period

NPS (nitrogen, phosphorous and sulphur) input of the 2001 treatments, given as an example of rates of major nutrients used in the 'standard' and 'standard with RLF program'.

Treatment	Granular Product	Kg/ha of product, etc.	Base fertiliser analysis
Control	None	0	0
Standard (Local Practice)	Agstar + urea + urea	95 + 50 + 50	60 - 13 - 10
Standard + RLF *	Agstar + urea + urea	95 + 50 + 50	60 - 13 - 10

NOTES:

RLF program was BSN-10 Seed Priming Fertiliser (at 5-litres per tonne of seed) and one foliar application of RLF **Ultra Foliar** Fertiliser (at 2.5-litres per hectare).

Graph 1 : Average net return or loss for the 5 year trial for different treatments as compared with standard treatment

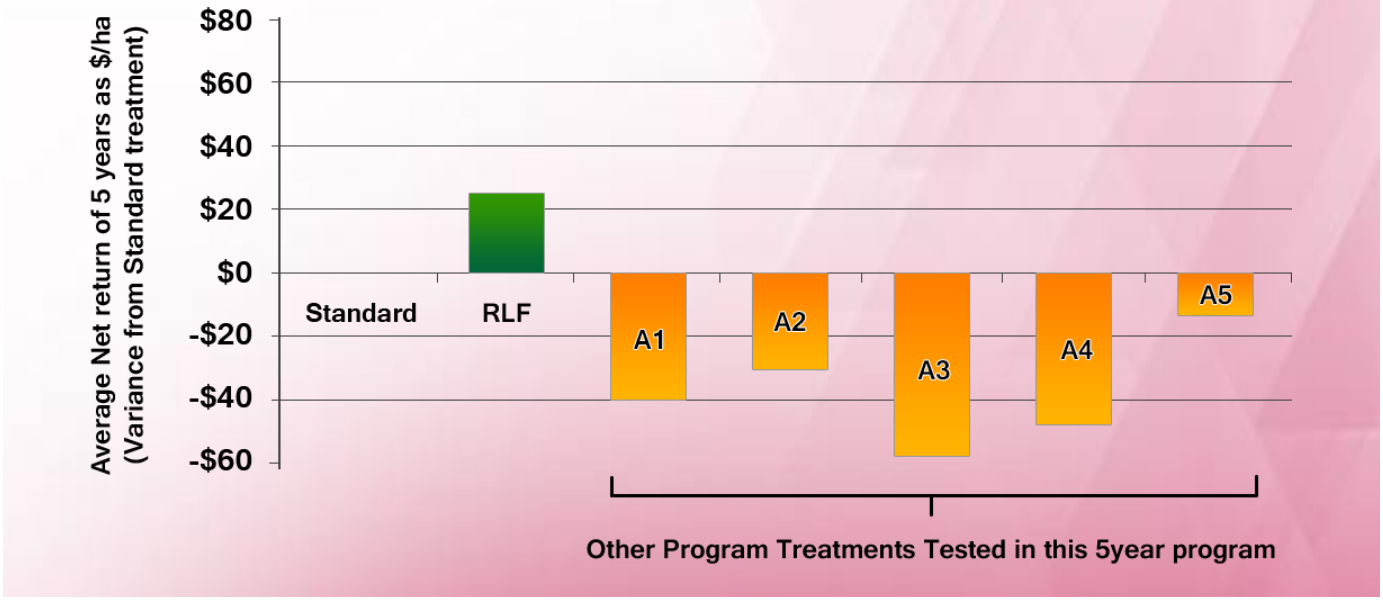


Table 2 : Reported yield of crops over the 5-year trial period

Also showing percentage yield increase by the RLF program over that of the Standard program.

Treatment	Yield as tonne/ha							
	1997 Eradu wheat	1998 Pallinup oats	1999 Belara lupin	1999 Karoo canola*	2000 wheat CFL**	2000 wheat CFC**	2001 Calingiri wheat	Total of 7 harvests (values in brackets % of 'control' program)
Control	2.98	2.25	2.43	0.96	2.94	2.53	3.02	17.11 (100%)
Standard	3.47	4.04	2.58	1.60	3.08	3.15	4.94	22.86 (133.6%)
Standard and RLF program	3.90	4.05	2.90	1.72	3.38	3.55	4.98	24.48 (143.1%)
% yield increase by RLF program	**12.4%**	**0.25%**	**15.5%**	**7.5%**	**9.7%**	**12.7%**	**1.81%**	**8.55% Average**
	Year1	Year2	Year3	Year3	Year4	Year4	Year5	

NOTES:

* BSN-10 was applied as foliar by mistake; the yield difference should have been much greater if Canola Plus was used as foliar spray as specified.
** CFL and CFC are Carnamah wheat following lupin and canola respectively.

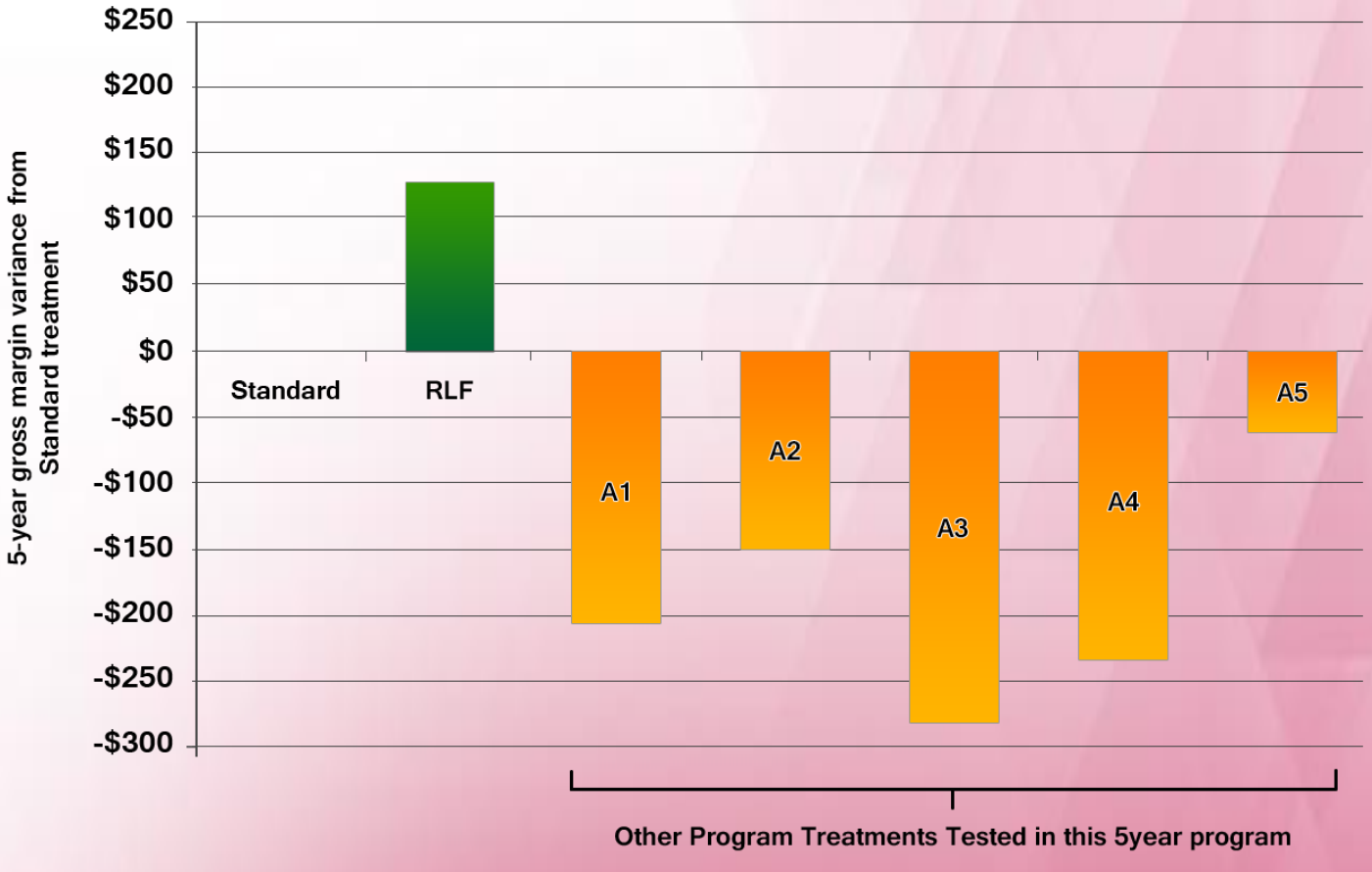
Table 3 : Gross Margin less fertiliser cost by RLF over that of Standard program

	5 year gross margin/ha less fertiliser cost $	Difference (loss or gain compared to Standard)			
Control	$2,244	-$533	/ 5year	-$106.601	/ year / ha
Standard	$2,777	0	/ 5year	$0	/ year / ha
Standard and RLF program	$2,901	$124	/ 5year	$24.80	/ year / ha

NOTES:

* RLF program was **BSN-10** Seed Priming Fertiliser (at 5-litres per tonne of seed) and one foliar application of RLF **Ultra Foliar** Fertiliser (at 2.5-litres per hectare).

Graph 2 : Net gain or loss of seven nutritional program over 5 years in reference to "Standard Program"



Summary

Evaluation Trials of this nature are rarely conducted and often quite complex.

It takes an inordinate amount of preparation and planning for a long-term trial that is replicated and has different field crops with rotation. It also takes commitment on the part of companies such as RLF to relinquish the management and procedural control of its product to independent researchers and reviewers over such a long period of time. Programs such as these have inherent difficulties in maintaining uniformity over all the variabilities, ranging location, soil type, seasonal implications and the individual farmers' past and current land management preferences and practice.

Even so, RLF has always had great faith in the efficacy and efficiency of its products and willingly participated in this trial. That said, the results being revisited here are the outcome of a very tough test and RLF did extremely well in consistently demonstrating that it was the best solution.

It is a trial that commenced over 15 years ago. It is therefore testament to the quality of product that RLF's program delivered the following results :

It should also be remembered that there are many value-added benefits flowing from the use of RLF products such as those used in this trial. The forerunners to the highly specialised Integrated Fertiliser Management (IFM) products of today – such as those used in this trial (BSN-10 and Ultra Foliar) - improves the root surface area and associated microbial activity in the rhizosphere. Such changes in root and its rhizosphere is the starting point for the chain reactions and biological activity of the soil that is considered so important for the ongoing health and sustainability of the farming land.

The role of soil organic matter and soil biological activity in crop health and sustainability of farms should always be kept in mind in order to have a productive, sustainable and safe program.

RLF is proud of this record of achievement when measured up against such a variety – of what was considered at the time – to be innovative and alternative crop fertiliser solutions.

But more importantly, of how our record of achievement has stood the test of time together with the ongoing development of our technologies and scientific solutions and concepts to ensure the best outcomes for farmers and growers in all cropping environments across the globe.

NOTES : All costs quoted in the body of this IN were current at the time of Trial in Western Australia.