



2010

Irrigated Lucerne Seed and Plant Persistence Trial



Rabobank



better seeds, better choices



SGA SuperSeeds™

Wrightson Seeds

TRIAL RESULT 2009-10

Comments: Lucerne Australia representative

The Lucerne Trial Committee, which is a subcommittee of Lucerne Australia, is pleased to present the trial results from the 2009/2010 production season.

Our goal from the outset was to establish a site which had independent management and data collection but was able to combine the knowledge and products of many companies. We have twelve companies with specialist knowledge of soil, plant health through to seed marketing. We believe this is a very unique site which will provide invaluable information to all levels of the lucerne industry for many years,

We wish to sincerely thank the following people

Ben Brinkworth for providing the land for the site and performing the many tasks associated with growing a lucerne seed crop.

SARDI Research Team, who have provided site layout and machinery for the seeding, pathway spraying and harvesting operations.

Thanks must also go to our sponsors who have made this all possible, participating seed marketers and our major sponsor Rabobank.

Comments: Trent Potter on understanding trial analysis

From the analysis a mean yield for all treatments is determined. The tables for individual experiments show mean yields and often as a percent of either the site mean yield or as a percent of a check variety or treatment. The coefficient of variation (CV%) gives an indication of the precision of the experiment. Experiments with high CV% are less reliable. The National Variety Testing considers anything over 15% as being less reliable. The 5% least significant difference (LSD) gives an indication of the yield difference that could occur by chance. Variety mean yields must differ by more than this value for the difference to be statistically significant.

Several trials were sown at the same site but comparisons between varieties can only be made within the one trial.

LUCERNE TRIAL COMMITTEE

2009/2010

CHAIRMAN

Scott Manser

COMMITTEE

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Murray Jones

Chad Makin

SARDI RESEARCH TEAM

Trent Potter

Ian Ludwig

Jack Kay

Carolyne Hilton

LUCERNE AUSTRALIA EXECUTIVE OFFICER

Charlie Crozier

Industry Sponsors

Seed Genetics Australia, Seedmark, Seed Force, Premier Seeds, Wrightsons Seeds.

Site Description

The site is located on Ben Brinkworth's property at Mt Monster, 15km south of Keith. The rainfall average is 500mm. It is situated on an established border check irrigated bay of 1 Ha. The soil consists of shallow sand, 200mm, over poorly structured sodic clay, calcreted limestone subsoil.

The lucerne was sown in August 2007, mowed in Dec and closed for seed production. It was monitored for pest levels and moisture requirements; it received approximately 3.5 MI/Ha of irrigation.

The complete management records are located at the back of the report.

1. Seed Yield Results for Varieties with a Winter Activity Rating of 5, 6 or 7

Lucerne Australia Analysed Results

Season 2009/2010

Variety	2009/10 (kg/ha)	% of Mean Yield
Super Aurora	955	148
Hunter River	805	124
UQL-1	734	114
Venus	689	106
SF714QL	655	101
SFR27-005	630	97
SM717	604	93
MSBAL1	603	93
Aurora	538	83
Genesis	536	83
MSBAL2	525	81
SFR27-007	489	76

Site mean	647
CV%	11.60
LSD	127.3

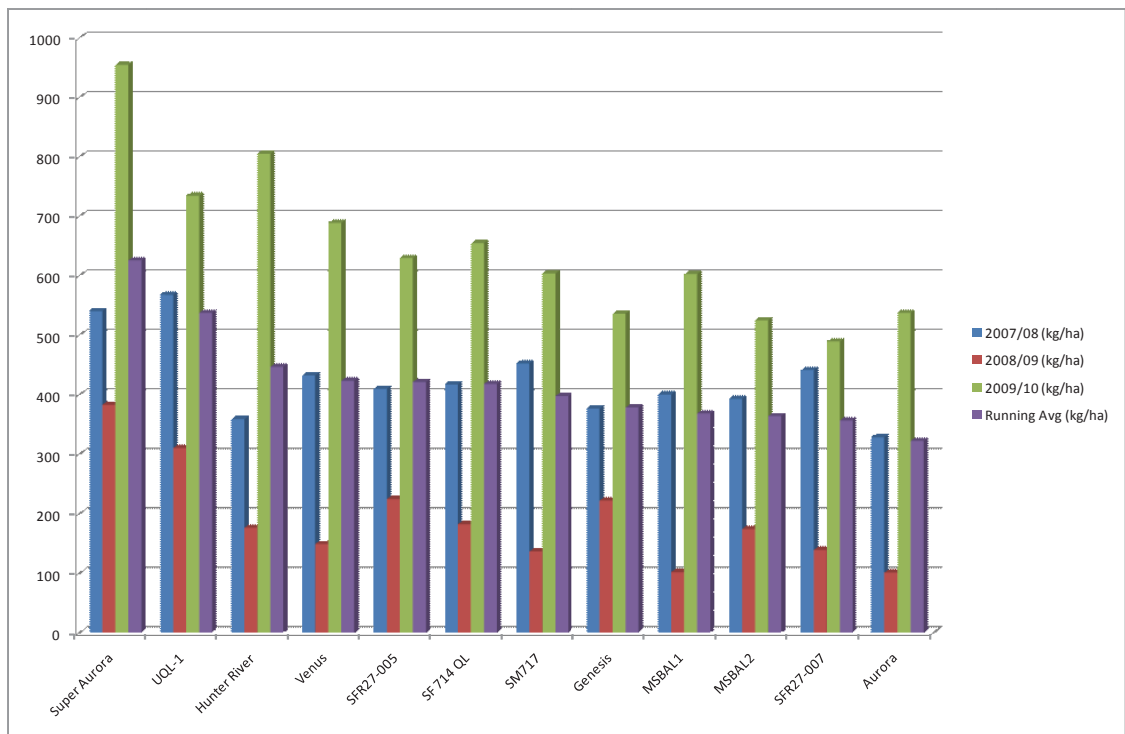
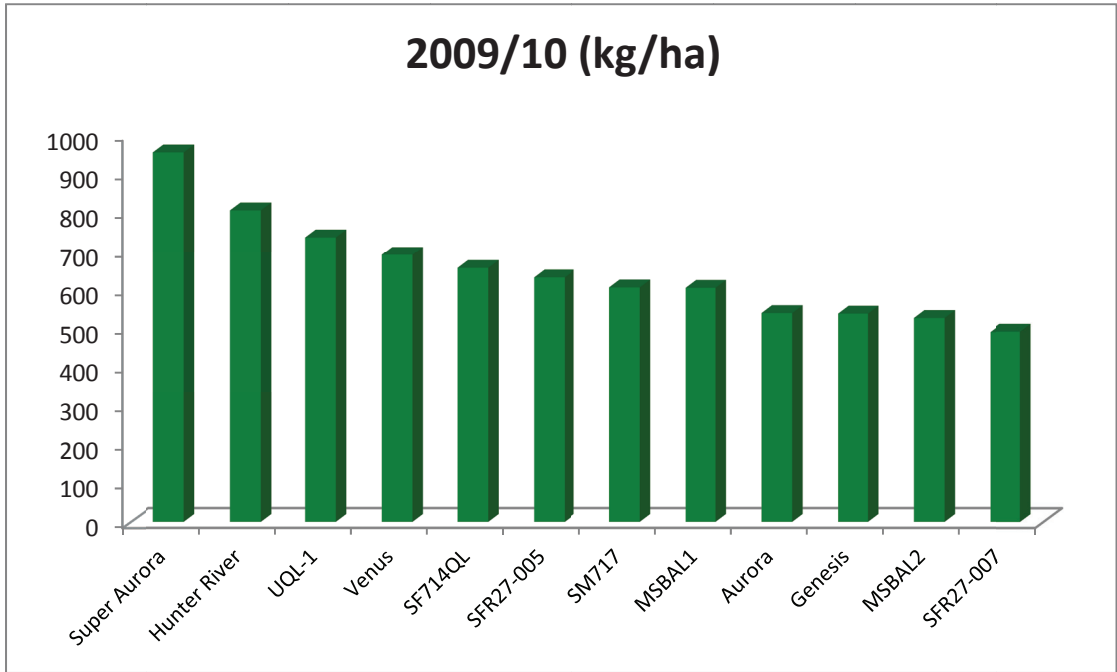
Please Note:

Hunter River has been used as the benchmark variety in this trial.

The right hand column of the table compares the performance of each variety against the average yield for the trial.

Ongoing Performance

Variety	2007/08 (kg/ha)	2008/09 (kg/ha)	2009/10 (kg/ha)	Running Avg (kg/ha)	% of Mean Yield
Super Aurora	383	541	955	626	148
UQL-1	310	568	734	537	127
Hunter River	176	359	805	447	106
Venus	149	432	689	423	100
SFR27-005	224	410	630	421	100
SF 714 QL	182	417	655	418	99
SM717	137	453	604	398	94
Genesis	222	377	536	378	90
MSBAL1	102	400	603	368	87
MSBAL2	174	393	525	364	86
SFR27-007	139	442	489	357	85
Aurora	101	328	538	322	76



2. Seed Yield Results for Varieties with a Winter Activity Rating of 8, 9 or 10

Lucerne Australia Analysed Results

Variety	2009/10 (kg/ha)	% of Mean Yield
Siriver MkII	881	147
RD-59	875	146
Super Sonic	813	136
Hallmark	664	111
FG1 91T403	631	105
Sequel HR	598	100
PS09-005	595	99
Magna 804	594	99
SFR27-001	593	99
Pegasus	578	97
SM714	577	96
SFR27-002	539	90
Siriver	516	86
FG1 10A215	514	86
Cal West 2966	492	82
AR-9	444	74
PS09-003	443	74
PS10-002	431	72

Site mean	599
CV%	17.56
LSD	176.7

Please Note:

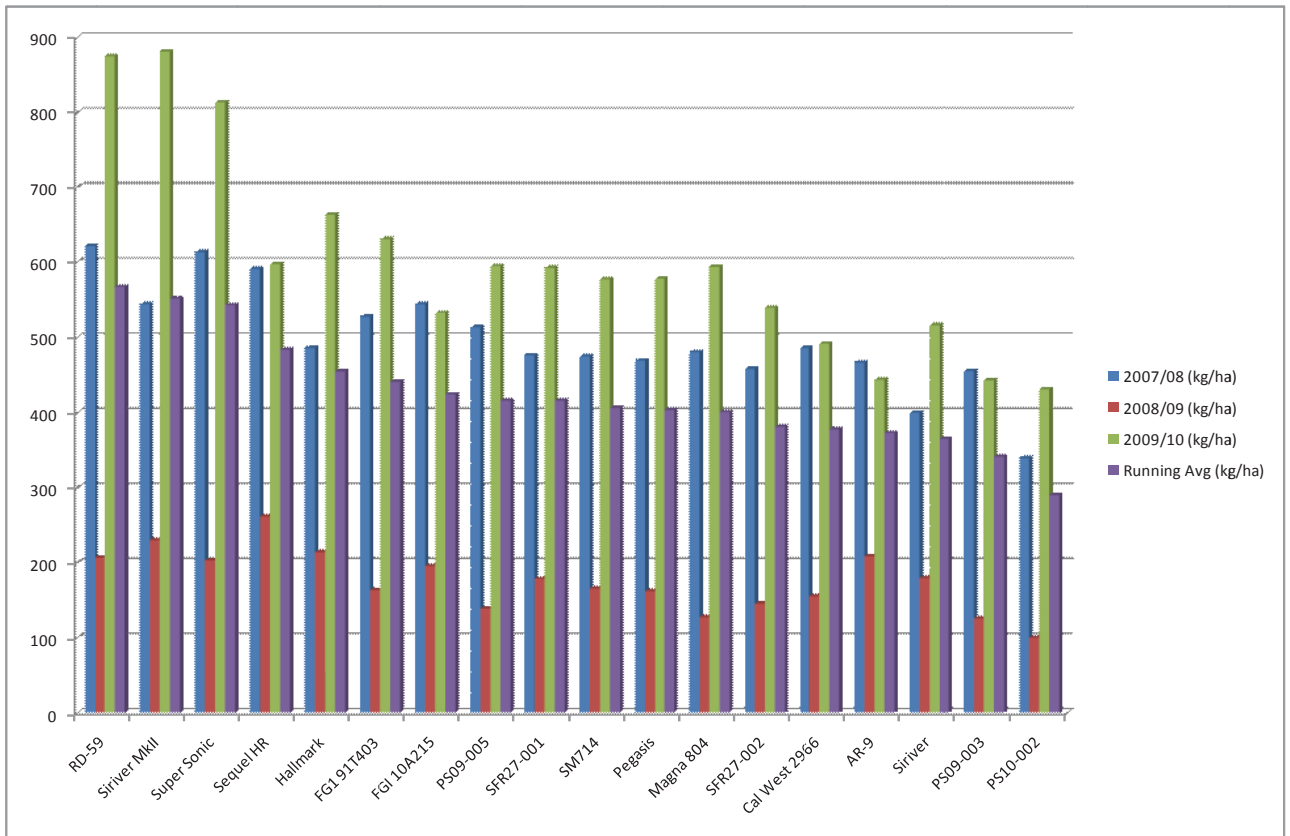
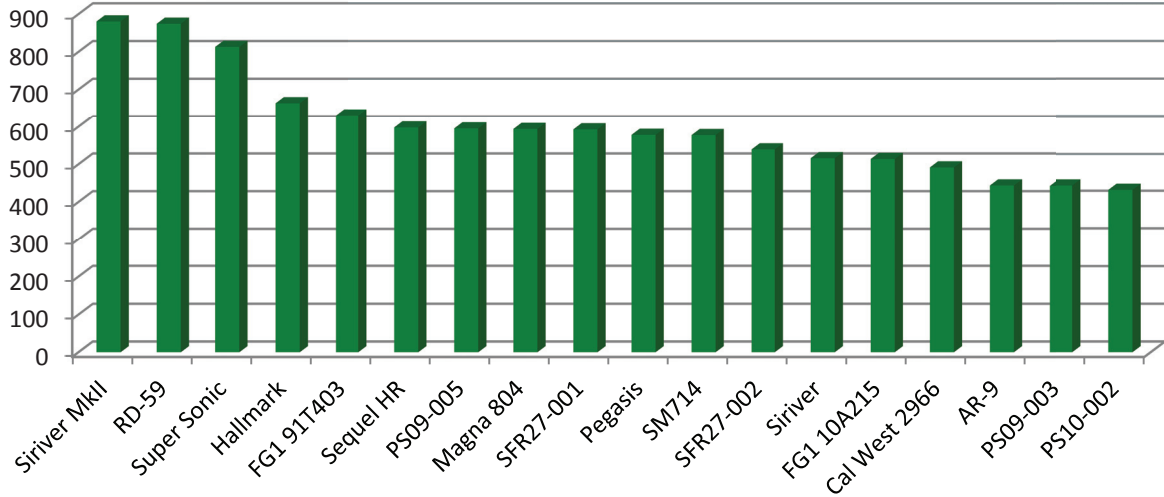
Siriver has been used as the benchmark variety in this trial.

The right hand column of the table compares the performance of each variety against the average yield for the trial.

Ongoing Performance

Variety	2007/08 (kg/ha)	2008/09 (kg/ha)	2009/10 (kg/ha)	Running Avg (kg/ha)	% of Mean Yield
RD-59	207	622	875	568	134
Siriver MkII	230	544	881	552	130
Super Sonic	203	614	813	543	128
Sequel HR	262	591	598	484	114
Hallmark	214	486	664	455	107
FG1 91T403	164	528	631	441	104
FGI 10A215	196	544	514	418	99
SFR27-001	178	476	593	416	98
PS09-005	139	514	595	416	98
SM714	165	475	577	406	96
Pegasus	162	469	578	403	95
Magna 804	127	480	594	401	95
SFR27-002	145	458	539	381	90
Cal West 2966	155	486	492	378	89
AR-9	208	467	444	373	88
Siriver	179	400	516	365	86
PS09-003	126	455	443	341	81
PS10-002	100	339	431	290	68

2009/10 (kg/ha)



MANAGEMENT PROGRAM

Season 2009/2010

*Winter Clean (August)-	Diuron @ 830 g/ha Simagranz 900 @ 275 g/ha Sprayseed @ 2 L/ha Dimethoate @ 150 ml/ha
*Winter Fertiliser Application-	Fertico KickStart® -220kg/ha
*Snail Bait-	1 st December @ 40kg/ha
*Closed for seed production	14 th December
*1 st Irrigation	14 th December -0.7ML/ha
*2 nd Irrigation-	31 st December -0.7ML/ha
*Insecticide-	4 th January -Fastac @ 160ml/ha -CuMn @ 4L/ha -Wetter @ 0.1%
*3 rd Irrigation-	16 th January -0.7ML/ha
*Insecticide-	18 th January -Fastac @ 160ml/ha -Wetter @ 0.1%
*4 th Irrigation-	4 th February -0.7ML/ha
*Insecticide-	1 st March -Fastac @ 100ml/ha -Lorsban @ 300ml/ha -Wetter @ 0.1%
*Defoliated-	18 th March -Sprayseed @ 2.5L/ha
*Harvest-	31 st March

Seed Variety Suppliers

Company	Variety	Contact Name	Phone	Email
Public varieties	Aurora			
	Hunter River			
	Siriver			
PREMIER SEEDS - P SD	Ⓟ PS09-005	Luke Kirkby	0428 512 963	lukekirkby@premierseeds.com.au
	Ⓟ PS09-003			
	Ⓟ PS10-002			
WRIGHTSON SEEDS - WN SD	Ⓟ Hallmark	Bruce Guy	1800 619 910	bguy@pggwrightsonseeds.com.au
	Ⓟ Siriver MK 11			
	Ⓟ Cal West 2966			
	Ⓟ Magna 804			
	Ⓟ A R-9			
	Ⓟ UQL-1			
	Ⓟ Sequel HR			
	Ⓟ MSBAL2			
SEED FORCE - S F	Ⓟ Force 10	Mike Gout	02 69449001	mikegout@seedforce.com
	Ⓟ SFR27-001			
	Ⓟ SFR27-002			
	Ⓟ SFR27-005			
	Ⓟ SFR27-007			
	Ⓟ SF 714 QL			
SEED GENETICS AUSTRALIA - SGA	Ⓟ Super Siriver	David Pengelly	08 87551144	mharvey@seedgeneticsaustralia.com
	Ⓟ Super Aurora			
	Ⓟ Super Sequel			
SEEDMARK - SMK	Ⓟ Venus	Colin Grant	08 8234 9333	c.grant@seedmark.com.au
	Ⓟ Genesis			
	Ⓟ SM714			
	Ⓟ SM717			
	Ⓟ FGI 91T403			
	Ⓟ FGI 10A215			

Ⓟ Denotes that the variety is protected by Plant Breeder's Rights