



# GNRS Trials Summary 2013



Great Northern Rural Services

## Special points of interest:

-Coron which is a non-corrosive form of nitrogen showed some promise.

-Emu Rock continues to perform well in sub 1.5T territory

-Pioneer DuPonts 43Y23 benchmark for Roundup Ready varieties.

-Lupin bud trials continuing and showing good results when applied pre budding. Has the potential for banding also.

-For full detailed trial reports please contact GNRS

## Vibrance in Field Peas

Location: Walkaway, Smith

Soil Type: Loam

Variety: Gunya

Vibrance, developed by Syngenta for the seed treatment market is based around the new active ingredient Sedaxane. Vibrance offers unique Rooting Power that results in stronger, healthier roots for greater crop performance – right from the start. In Australia it is currently registered in cereals only. However Vibrance could have potential in the Field Pea market for a range difficult to control seed, soil and air borne pathogens.

### Vibrance Trial - Chapman Valley

Treatment	Yield
Untreated	2.130
Vibrance 2L/Ha	2.123

## Coron Nutrition Trials

Location: CR & M McCagh

Soil Type: Loamy Sand

Variety: Stingray

Harvest Date: 11/11/2013

CoRoN developed by Helena is a unique mixture of urea and methylene urea. The resulting formulation is a 100% water-soluble concentrate that is highly uniform. Compared with simple urea and ammonia-based fertilizers, CoRoN is chemically and physically very distinct, being non corrosive and very safe for all foliar based crop applications. CoRoN was applied @20L (80L UAN equivalent) and Calfusion @2L in this particular trial.

### Coron in canola Trial - McCagh 2013

	Yield kg/ha		
	Oil	GM/HA	
Untreated	540	43.1	\$281.02
Coron	589	41.9	\$299.96
Coron + Calfusion	537	42.8	\$278.27
Canola Price \$		\$510	

## Canola Nutrition

Location: Binnu

Growing Season Rainfall: 160mm

Veggie mix is a product formulated by Nutriac specifically for use in horticulture. This trial aimed to mimic results achieved for fruiting in vegetable crops across into brassica broadacre crops.

Variety	Yield	Oil %
Untreated	1.72	43.5
Coron @ 10L/Ha	1.74	42.5
Maxam Flo @ 60L/Ha	1.76	43
Veggie Mix @	1.63	42

## Grazed Wheat Plus Coron

Location: Binnu

Soil Type: Sandplain

Rainfall GS: 165mm

In 2013 a grazing trial looking at the effects of Nitrogen applied post grazing was conducted in Binnu. Cobra responded very well to a one off graze over a period of 14 Days, with an application of 10L of CoRoN giving an increase of 350kg/ha.

Variety	Yield	Protein %	Screenings	
			%	Grade
Cobra	1.01	13.4	2.60	HI
Cobra + Coron	1.36	13.6	2.74	HI
Carnamah	1.09	14.0	4.75	HI
Carnamah + Coron	1.05	14.2	5.46	AUH2

## Wheat Variety Trial

Location: Binnu

Soil Type: Red Loam

Rainfall GS: 160mm

2012 saw the release of Emu Rock a AH variety well suited as a replacement for Bonnie Rock in lower rainfall areas sub 1.5T/ha potential. Emu Rock is a Westonia derivative and is a very quick wheat, with head emergence within 86 days. This makes it a worthy option for mid to late sowing opportunities in short growing seasons.

Variety	Yield	Protein %	Screenings	
			%	Grade
Cobra	0.88	15.4	3.00	HI
Emu Rock	1.04	16.1	4.40	HI

## Canola Variety Trial

Location: Binnu

Soil Type: Red Loam

Seeding Date: 8/5/13

Rainfall GS: 165mm

A number of new Hybrid RR varieties were trialed in 2013 with commercial release into 2014. IH30 is Bayer CropScience's early RR hybrid entry into the market and has a similar maturity to 43Y23 and is slightly shorter season than Hyola 404 and GT41 which were all showcased in this trial. IH30 performed quite well in the 2013 NVT trials, especially in Cunderdin, Buntine and Kelleberin. One observation could be that IH30, unlike 43Y23 has limited adaptability and is suited to a later sowing date.

Variety	Yield	Oil %
43Y23	1.39	42.7
GT41	1.47	43.5
404	1.01	44.1
IH30	0.89	42.1

### Clearfield Canola Challenge

Pioneer, in conjunction with BASF again ran the Clearfield Challenge for 2013. The aim of the Clearfield® Canola Challenge is to grow the highest gross margin Pioneer® brand Clearfield hybrid canola and compare the results side by side with a triazine tolerant canola variety.

Variety	Avg. Yield	Oil %
44Y84 CL	1.436	43
SNAPPER TT	1.42	48.5
STURT TT	1.555	45.2
STINGRAY TT	1.696	45.8



### Lupin Nutrition Demo Trial

Location: Depot Hill

Soil Type: Sand

Sprayed: Mid July

Variety: Mandelup

Trace elements, in particular foliar trace elements have been applied on Western Australian soils for some time, as many of the soils used in the northern agricultural region for broad acre cropping are highly weathered and very infertile. Foliar applications of fertilizers can help alleviate deficiencies mid season and are commonly used with herbicide applications.

Products such as Lupinbud and MangZn are developed by Nutriam and help to alleviate stresses associated with growth, pod formation and pod retention. The relationship between calcium, boron and manganese (components of Lupinbud) are of particular importance. These nutrients used correctly will all help retain or increase pod set during flowering. Calcium is required for synthesis of cells in the growing pollen tube and boron is directly linked to calcium absorption and pollination. Boron is also known to be necessary for stimulation of root growth, increased root nodule development for nitrogen fixation, increased bloom and pod retention. Other nutrients that may aid in pod retention and yield are magnesium to improve chlorophyll production in new leaf production, zinc to alleviate environmental stresses that may cause pod abortion on lupins throughout the season, manganese to help reduce seed split, molybdenum to help aid deficiencies on acidic sand plain soils and copper which is an essential component of many plant enzymes that control chemical reactions in the plant

Location	Treatment	Rate	Yield
Allanooka	Control		2.64
	Lupinbud	2L	2.22
	MangZn	1L	2.40
Exchange	Control		2.70
	Lupinbud	2L	2.80
	MangZn	1L	2.77



The Allanooka site was Moldboard ploughed at the start of the 2012 season.

The Exchange site was untreated. Both sites are a Wheat/Lupin rotation.

### Pre and Post Emergent Radish Options

Location: Binna

Soil Type: Sandplain

Posty Emergent Application: 03/7/13

First Post Emergent Control Ratings: 17/07/13

Variety: Magenta

With the onset of widespread resistance across a number of chemical groups (B, I.F.C.) we use for the control of wild radish in broadacre cropping each year, our ongoing struggle is to either find new or existing options for control and suppression either at seeding or post emergent. The following trial was set up as a criss cross trial with post emergent

applications of Jaguar, Velocity and Ecopar/MCPA/Diuron/Terbyne run across all pre-em applications. Terbyne by Sipcam is a triazine herbicide (Grp C) which has just gained an APVMA permit for the pre-emergence suppression of wild radish and doublegee in wheat, barley and oats. Early control of radish in both terbyne pre-emergent plots showed great promise and gave enough early control and time to get back to spray post emergent applications with applications of Velocity & Jaguar controlling next to 100% of wild radish.

	Logran B	Diuron @ 300gm	Diuron @ 500gm	Terbyne @ 1.1kg	Terbyne @ 1.4kg	Valor @ 120gm	Untreated
Untreated	1	3	3	3	4	1	0
Jaguar @ 1ltr	8	7	9	9	9	8	7
Velocity @ 500 Ecopar/MCPA/ Diuron	10	9	10	10	9	10	10
	9	9	10	7	8	7	8

Nb. Diuron pre emergent at 500gm/ha on sandplain is not recommended.