



Loveland

AGRI PRODUCTS
Get Growing

LENTIL
Seed Inoculant
CALLINGTON, SA

LOV16

Trial Design

- LOCATION: CALLINGTON, Adelaide Hills, SA
- Landmark Contact/ Cooperator: Leighton Wilksch
- Plot size – 1.5m x 20m – replicated x 4
- Treatments Applied: Callington, Adelaide Hills, SA.

Seeding Date	2nd June 2016
Site	Callington, SA
Variety	Jumbo2 (Lentil) 50 kg/ha
Protocol	<p>Pre Sow: Terbyne Xtreme + Boxer Gold + Avadex Xtra @ 0.5kg + 2.5L + 2.0L/ha</p> <p>Sowing Equipment: Conserva Pak tynes on 260 mm spacings.</p> <p>Post Emergent: 17th Aug - Clethodim @ 1.0 L/ha</p> <p>Post Emergent: 9th Sept - Carbendazim + Chlorothalonil + Nutrisync D + ZMC + Pirimor @ 0.5 + 1.0 + 0.8L + 0.3 + 0.4kg/ha</p>
GSP	<p>Sowing fert: MAP at 60 kg/ha</p> <p>Note: ZMC (SprayGro) – S-7.3%; Zn-9%; Mn-4%; Cu-1.5%</p>

Soil Test Data

SOIL 0-10 cm	
pH (CaCl ₂)	
eCEC cmol +/kg	
Calcium (Amm-acet) cmol +/kg	
Magnesium (Amm-acet) cmol +/kg	
Exch. Sodium %	

DEEP N 0-60cm	
Nitrate nitrogen (KCl) mg/kg	
Ammonium nitrogen (KCl) mg/kg	
Sulfate-S (KCl ₄₀) mg/kg	

Nitrate nitrogen (KCL) mg/kg	
Ammonium nitrogen (KCl) mg/kg	
Phosphorus (Colwell) mg/kg	
Potassium (Amm-acet) cmol+/kg	
Sulfate-S (KCl ₄₀) mg/kg	
Copper (DTPA) mg/kg	
Zinc (DTPA) mg/kg	

Trial Protocol

	Treatment	Seed Treatment Rate/ T seed
T1	Untreated	-
T2	Inoculant	PEAT
T3	Pulse Seed Coat	5
T4	Inoculant + Pulse Seed Coat	PEAT + 5
T5	Kickstart	4
T6	Seed Zinc	4
T7	Awaken ST	4

Note: T2 and T4 were the only treatments that were inoculated.

Awaken ST – N-7%; K-1%; Zn-6% plus trace element package

Seed Zinc (is Activist Zinc – Agrichem) – N-5%; Zn-2%

Kickstart (SJB) – P-6%; Zn-4% plus a trace element package

Pulses seed coat – Landmark SA experimental

Yield



Treatment	Seed Treatment lt/ T seed	Yield T/ha
Untreated	-	2.98
Inoculant	PEAT	2.98
Pulse Seed Coat	5	3.05
Inoculant + Pulse Seed Coat	PEAT + 5	3.21
Kickstart	4	3.28
Seed Zinc	4	3.37
Awaken ST	4	3.32

Yield and Stats

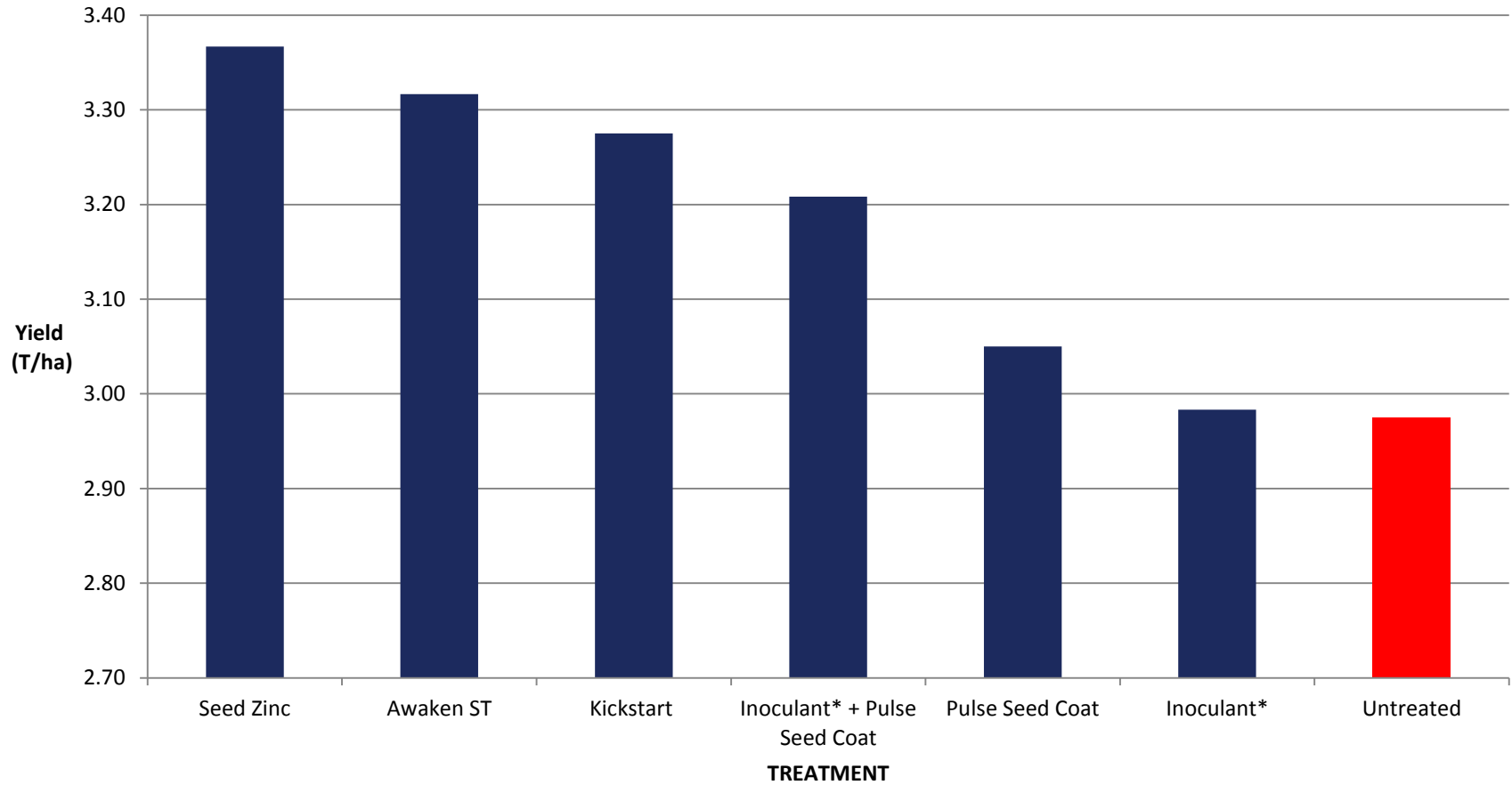


	Treatment	Applied Rate /ha	Yield T/ha	Yield as % of GSP	Sig Dif
6	Seed Zinc	4 lt	3.37	113	a
7	Awaken ST	4 lt	3.32	112	a
5	Kickstart	4 lt	3.28	110	a
4	Inoculant* + Pulse Seed Coat	Peat + 5 lt	3.21	108	ab
3	Pulse Seed Coat	5 lt	3.05	103	bc
2	Inoculant*	Peat	2.98	100	c
1	Untreated	-	2.98	100	c

Yield Statistics:

LSD (P=0.05%) – 0.22 CV – 6.3

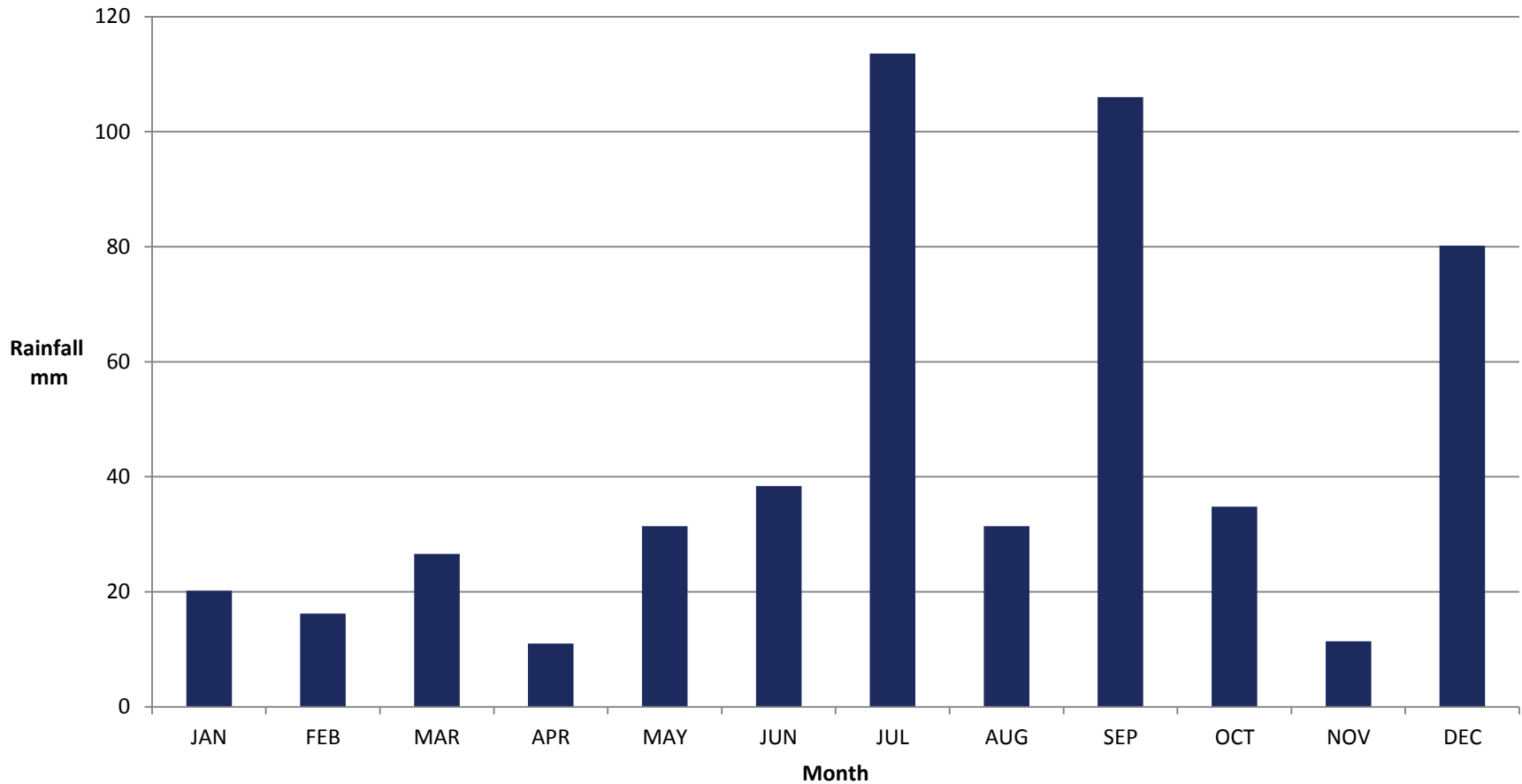
Yield (T/ha)



Rainfall Total – 521.2 mm



Rainfall 2016 CALLINGTON SA



Conclusions

- There were some significant differences in this trial compared to the Untreated that yielded 2.98 T/ha
- The seed zinc topped the trial with a 13% yield increase
- While Awaken ST was just behind with a 12% increase
- In this trial inoculation of seed alone did not give a yield response , however when combined with Pulse seed coat an 8% yield increase was achieved.