



Loveland

AGRI PRODUCTS
Get Growing

LENTIL INOCULANT KAINTON, SA

LOV16

Trial Design



- LOCATION: Paskeville, Northern Yorke, SA
- Landmark Contact/ Cooperator: Leighton Wilksch
- Plot size – 1.5m x 11m – replicated x 4
- Treatments Applied: Seed treatment

Seeding Date	19th May 2016
Site	Paskeville, 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: 28th July – Clethodim @ 1 lt/ha.</p> <p>Post Emergent: 31st Aug – Chlorothalonil + Carbendazim + Pirimor @ 1.0 + 0.5L + 0.5kg/ha applied</p> <p>Post Emergent: 23rd Sept - Carbendazim + Pirimor @ 1.0 + 0.5L + 0.5kg/ha</p> <p>Post Emergent: 10th October - Carbendazim + Trojan @ 1.0 + 0.5 + 0.05L/ha</p>
GSP	Sowing fert: MAP at 60 kg/ha

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	-	2.25
Inoculant	PEAT	2.45
Pulse Seed Coat	5	2.23
Inoculant + Pulse Seed Coat	PEAT + 5	2.40
Kickstart	4	2.25
Seed Zinc	4	2.29
Awaken ST	4	2.29

Yield and Stats



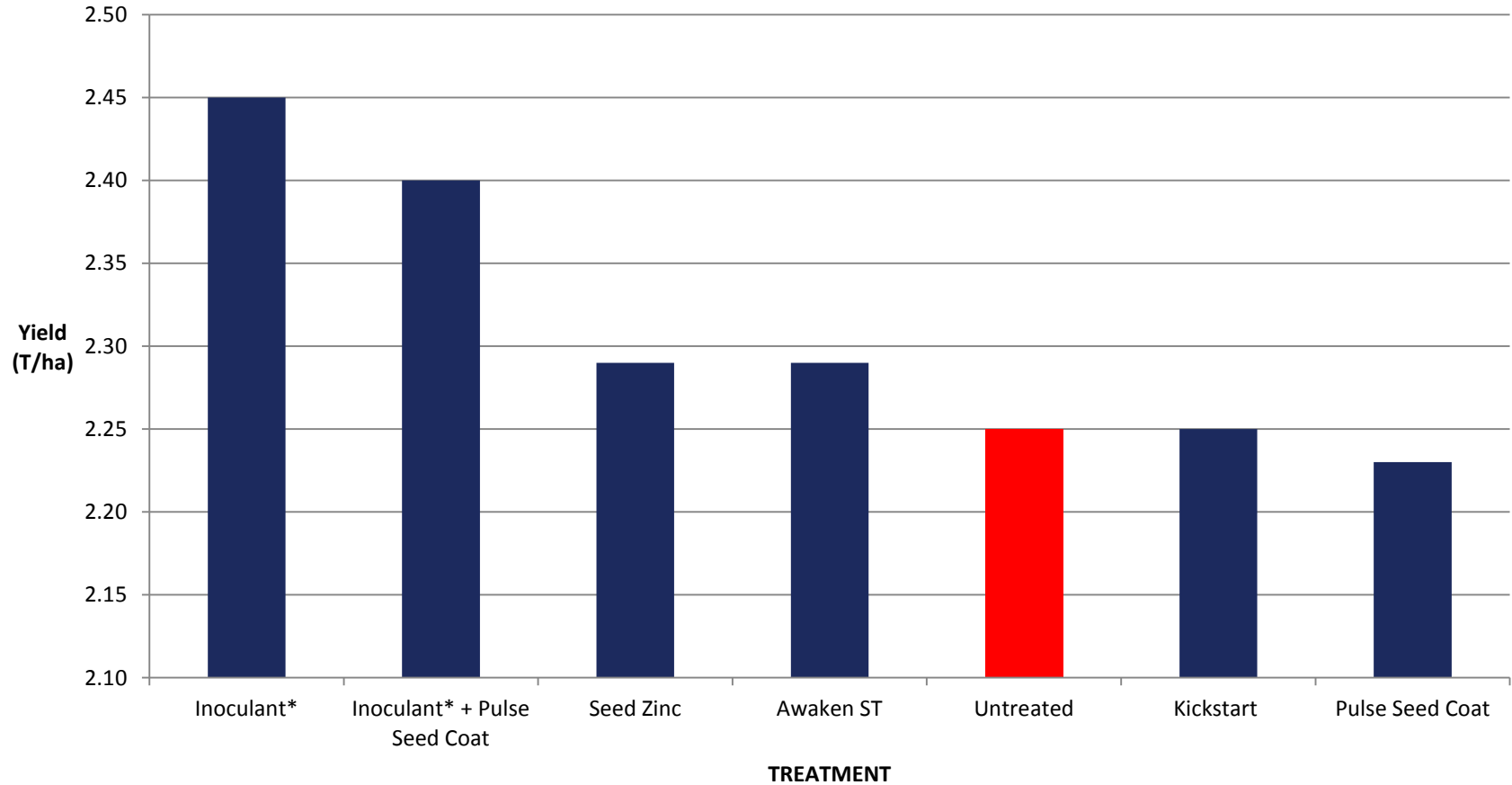
Treatment		Applied Rate /ha	Yield T/ha	Yield as % of GSP	Sig Dif
2	Inoculant*	Peat	2.45	109	a
4	Inoculant* + Pulse Seed Coat	Peat + 5 lt	2.40	107	a
6	Seed Zinc	4 lt	2.29	102	a
7	Awaken ST	4 lt	2.29	102	a
1	Untreated	-	2.25	100	a
5	Kickstart	4 lt	2.25	100	a
3	Pulse Seed Coat	5 lt	2.23	99	a

Yield Statistics:

LSD (P=0.05%) – 0.24

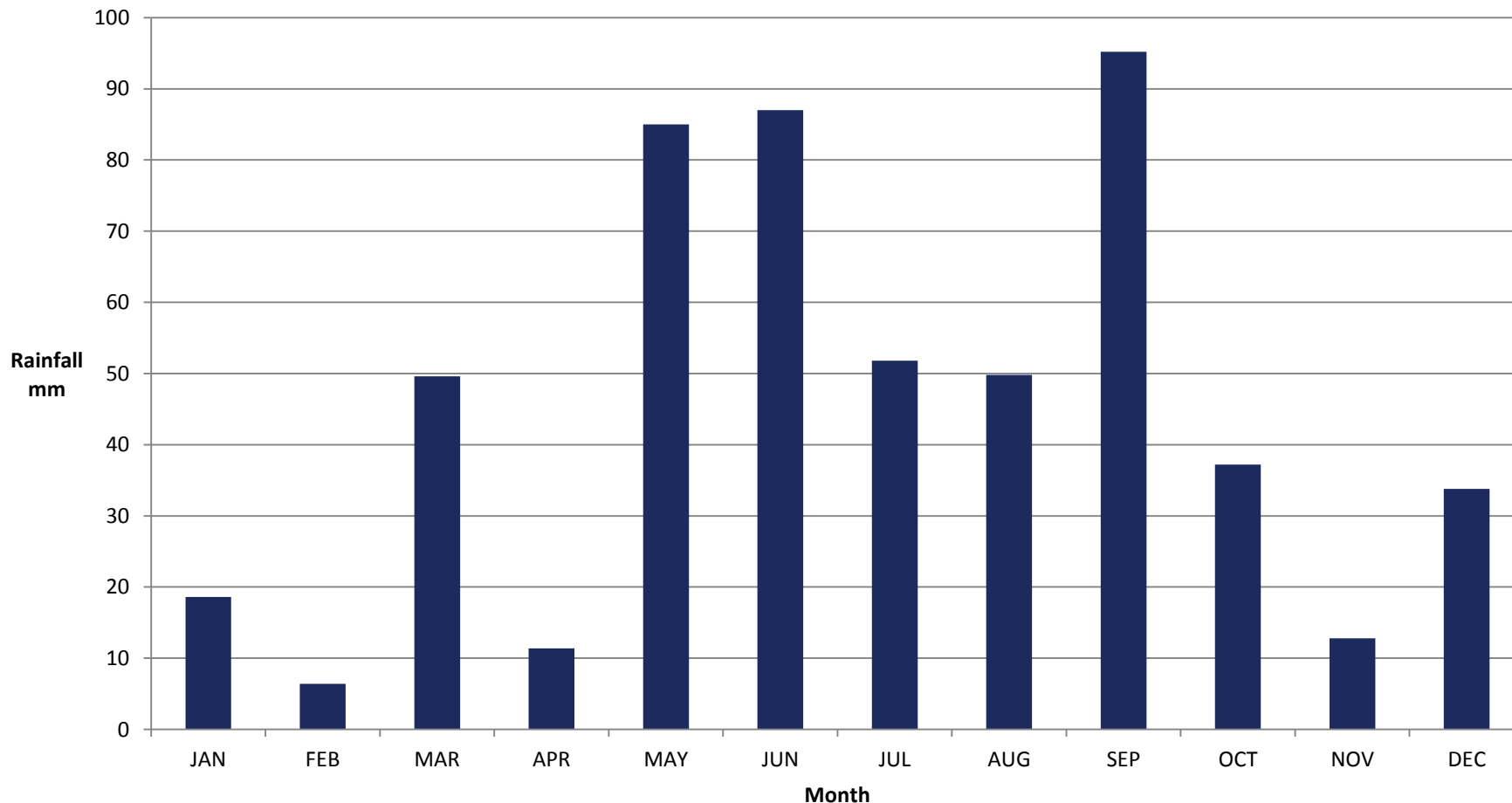
CV – 9.2

Yield (T/ha)



Rainfall Total – 538.6 mm

RAINFALL 2016 Paskeville SA



Conclusions



- Untreated yielded 2.25 T/ha
- Awaken ST and Seed Zinc both had a yield response of 2% over Untreated
- The inoculated seed had the highest yield or 9% over Untreated, this dropped back to a 7% increase when Pulse seed coat was added.