



Loveland

AGRI PRODUCTS
Get Growing

Late K response - Barley
Western Australia

LOV16

Trial Design



- LOCATION: Northern WA.
- Landmark Contact/ Co-operator: Darren Chitty
- site at Northampton

| | |
|---------------------|---|
| Seeding Date | 12th May2016 |
| Site | Northhampton WA |
| Variety | LaTrobe@70 kg/ha |
| Protocol | Knockdown: Trifluralin 2L/ha + Boxer Gold 2.5L + Ultramax 2L/ha + Cobalt 1 L/ha. Post Em: Velocity 1 L/ha + Liberate 0.75% |
| GSP | Urea 80 kg/ha IBS + Mes10 80kg/ha + UAN 60 L/ha @ Tillering (72N - 14P - 0K - 8S) |

SOIL and PLANT TEST:

SOIL TEST:

| Paddock Name | Crop Type | Plant Part | Tot N | P | K | S | Mg | Cu | Zn | Mn | NO3 N |
|-----------------|-----------|-------------------------|-------|------|------|------|------|------|-------|-------|-------|
| WMG - untreated | Barley | Whole Tops -late tiller | 2.20 | 0.26 | 2.48 | 0.15 | 0.16 | 3.40 | 22.07 | 63.72 | 54.38 |

PLANT TEST:

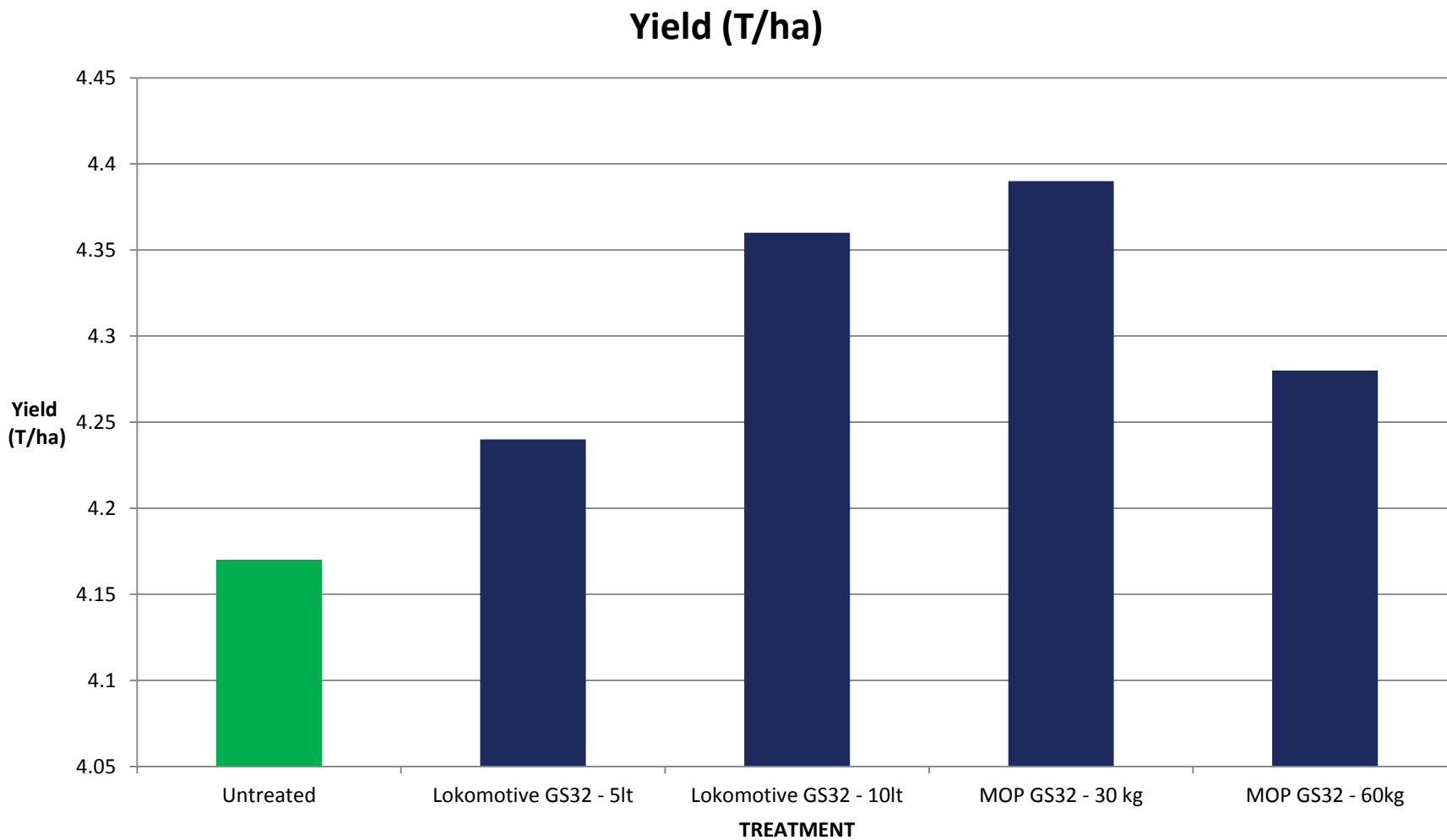
| Depth (cm) | Colour | pH (CaCl) | EC | OC | N (NO3) | N (NH4) | P (Colwell) | K (Colwell) | S (KCl) |
|------------|--------|-----------|------|------|---------|---------|-------------|-------------|---------|
| 0-10 | YWGR | 5.5 | 0.09 | 0.88 | 35 | 3 | 20 | 30 | 4.8 |
| 10-30 | YWBR | 4.8 | 0.02 | 0.3 | 7 | 0 | 12 | <15 | 3.5 |

Late K Response - Barley



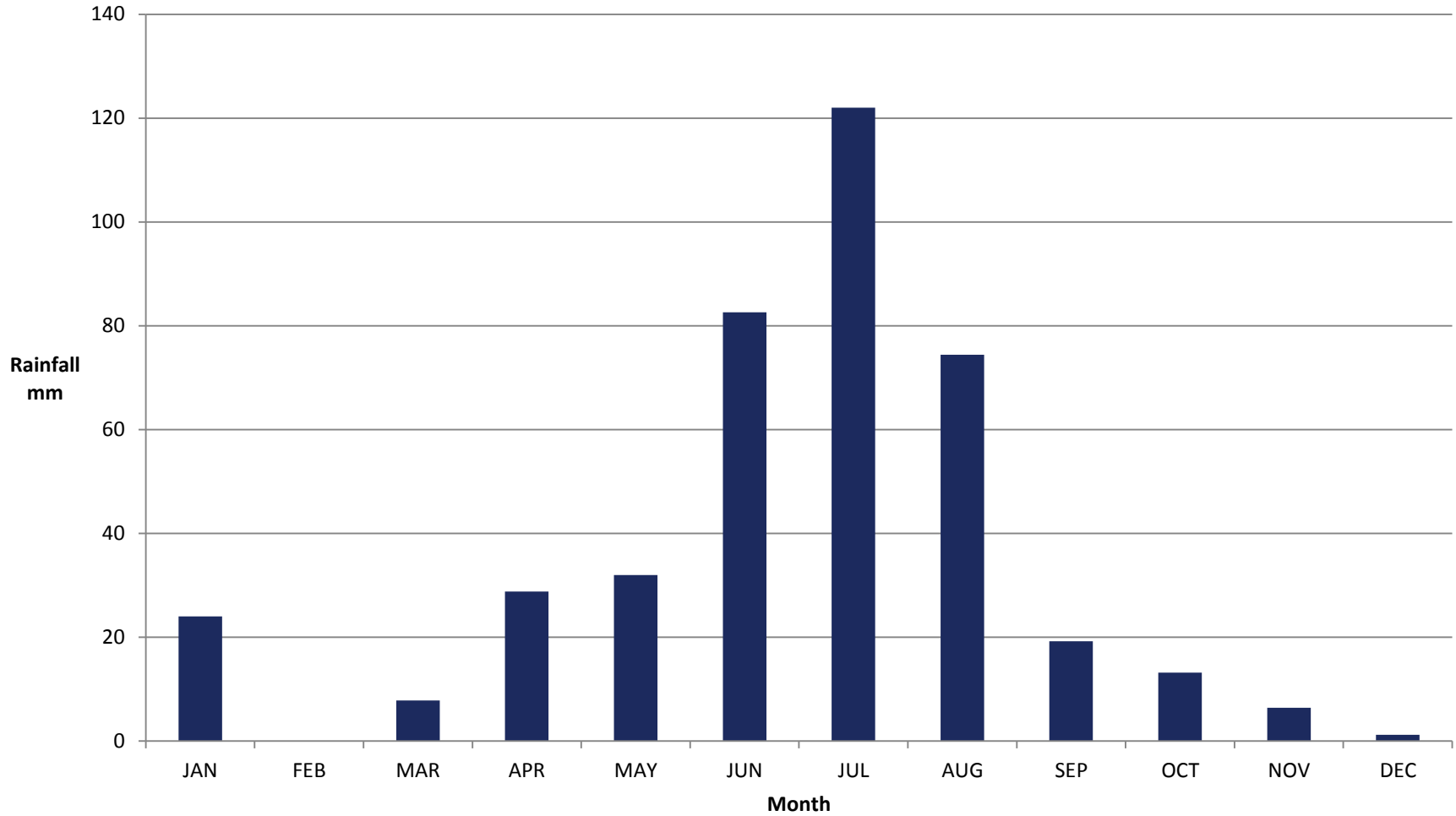
| Treatment | Applied Rate /ha | Grain Yield t/ha | % of UTC |
|-----------------|---------------------|------------------|----------|
| Untreated | ---- | 4.17 b | |
| Lokomotive GS32 | 5 lt | 4.24 ab | 102 |
| Lokomotive GS32 | 10 lt | 4.36 ab | 105 |
| MOP GS32 | 30 kg | 4.39 a | 105 |
| MOP GS32 | 60 kg | 4.28 ab | 103 |
| | LSD (P=0.05) | 0.203 | |
| | CV | 2.67 | |

Late K - response



Northampton WA

Rainfall 2016 total – 411.16mm



Conclusion

- The objective was to compare Lokomotive, a liquid potassium product, to the standard granular muriate of potash (MOP).
- Application timing was at GS 32, at the time of application there were typical potassium deficiency symptoms on the lower leaves.
- There was a small yield response (1.7% to 5.3%) from both Lokomotive and MOP however this was not significantly different to the untreated control.
- The small response to potassium in 2016 may be attributed to the wet spring conditions that would have made potassium in the soil more available to the crop.