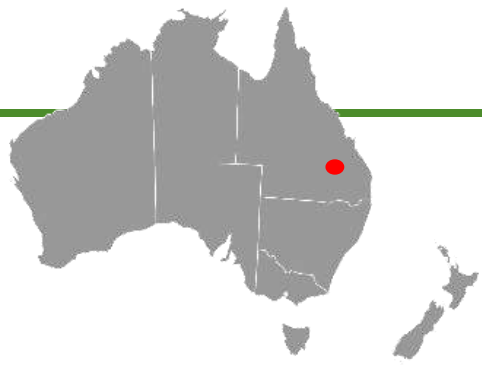
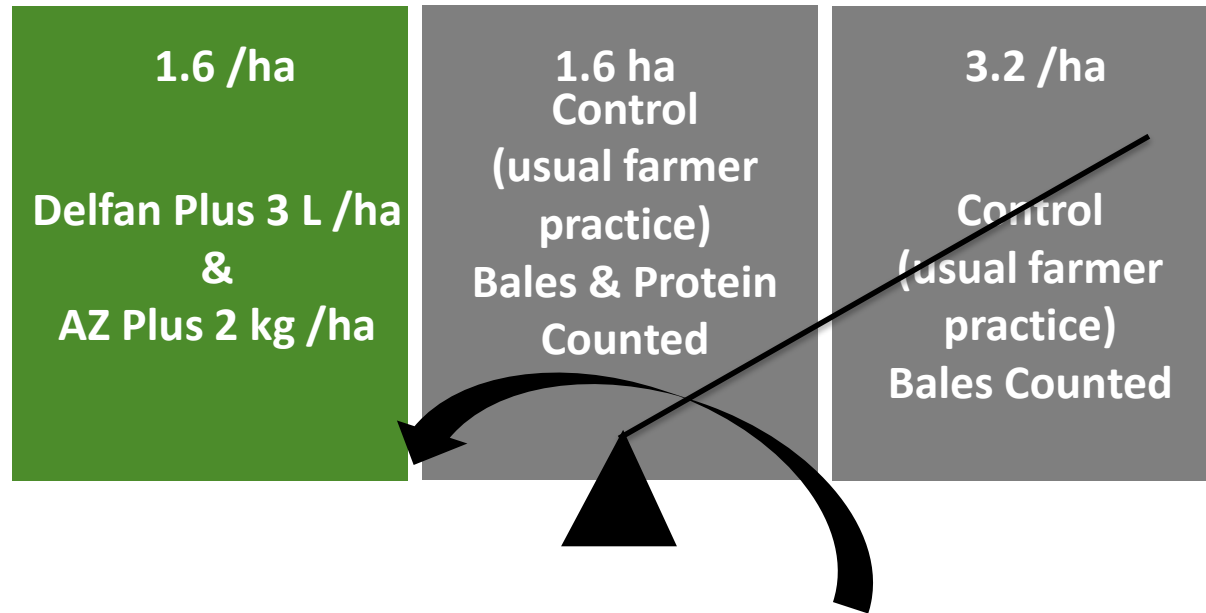


Trial: Delfan Plus & Tradecorp AZ Plus Lucerne Hay



Crop:	Lucerne var. L56
Product:	Delfan Plus + AZ Plus
Aim:	More Bales, Shorten Recut Interval, Protein
Application:	Boom spray, 300L /ha
Rate:	Delfan Plus 3L /ha & Tradecorp AZ Plus 2kg /ha
Start date:	18/7/17
Harvest date:	Cut 1: 23/8/17, Cut 2: 27/9/17
Assessment:	Vegetative growth, Bale Yield Protein
Notes:	Soil; black loam, Irrigation; centre pivot, Climate; sub- tropical

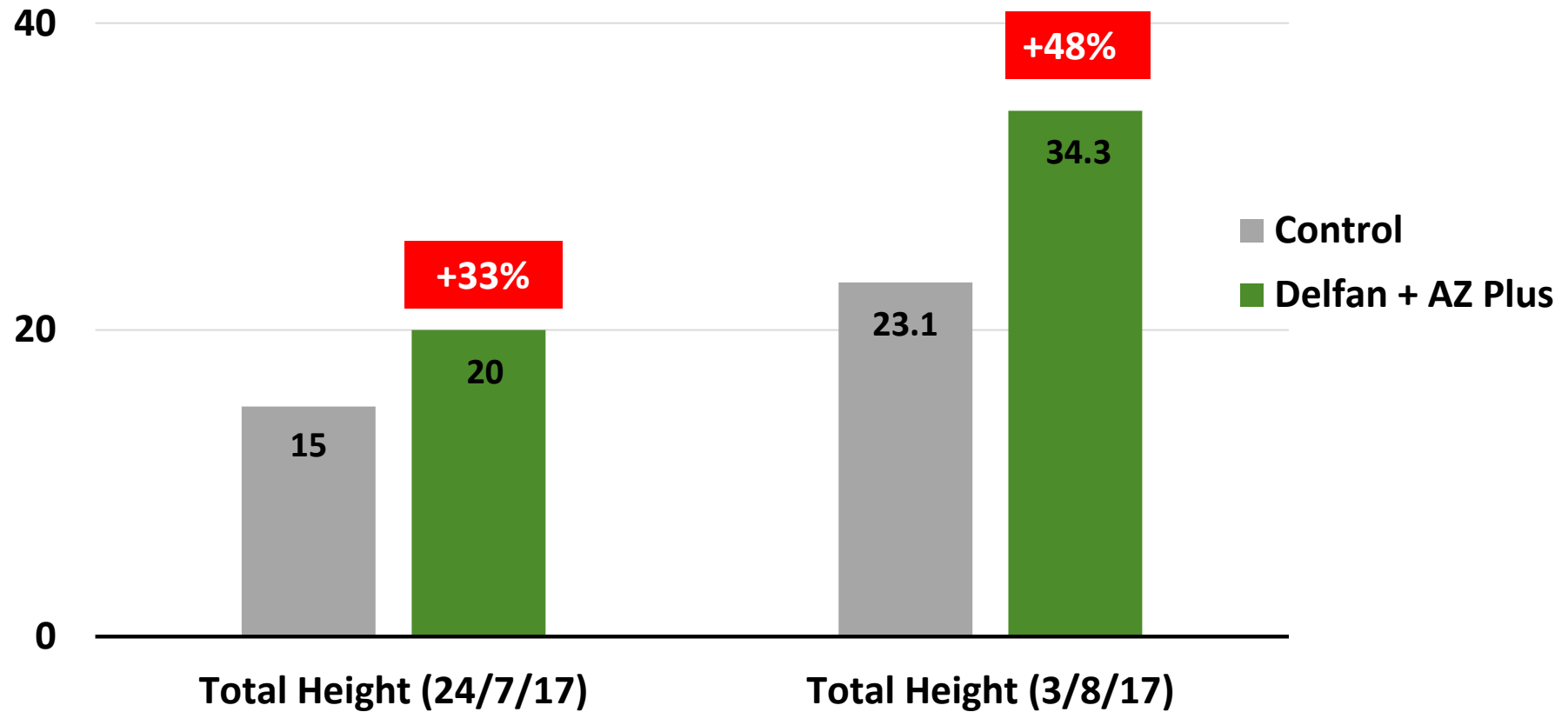
Design



Set-up and Application

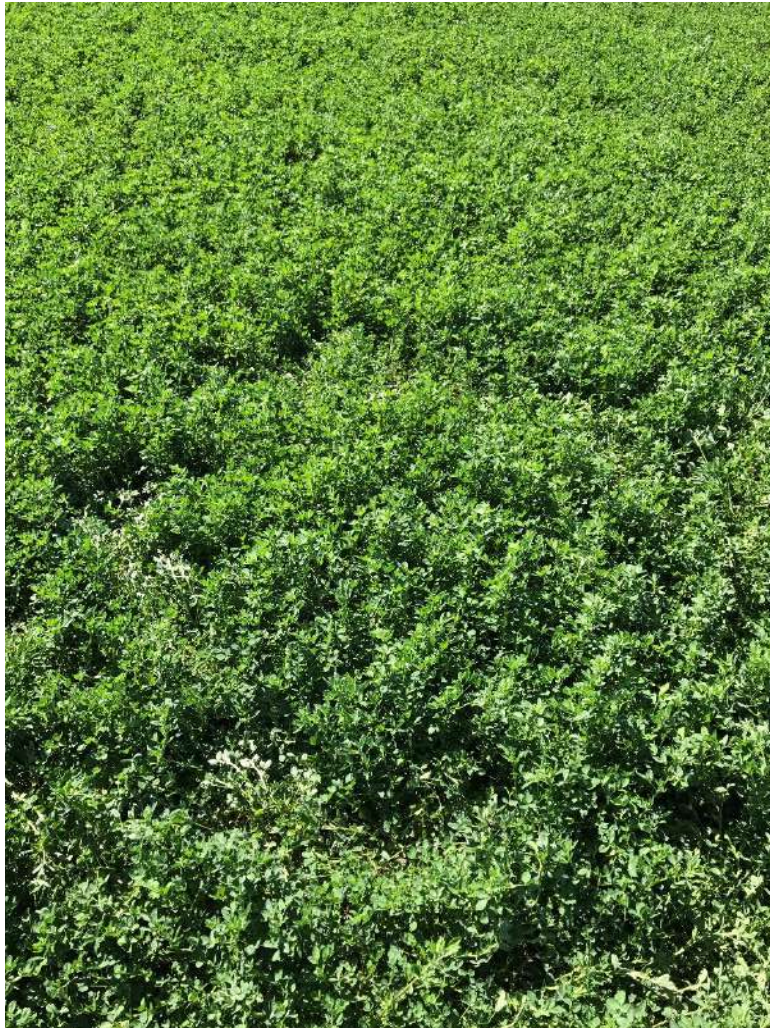
- Continuous Lucerne crop used for hay making for horse market
- Lucerne was cut, ground dried and baled
- Delfan Plus & Tradecorp AZ Plus applied 7 days after baling
- **Aim:** Delfan Plus for rapid recovery after leaf removal, AZ Plus for micronutrients and Cobalt / Molybdenum for leguminous crops

Results: Total height



- Total Height 6 and 16 days after Treatment

Result: Pre-harvest Photos



Control

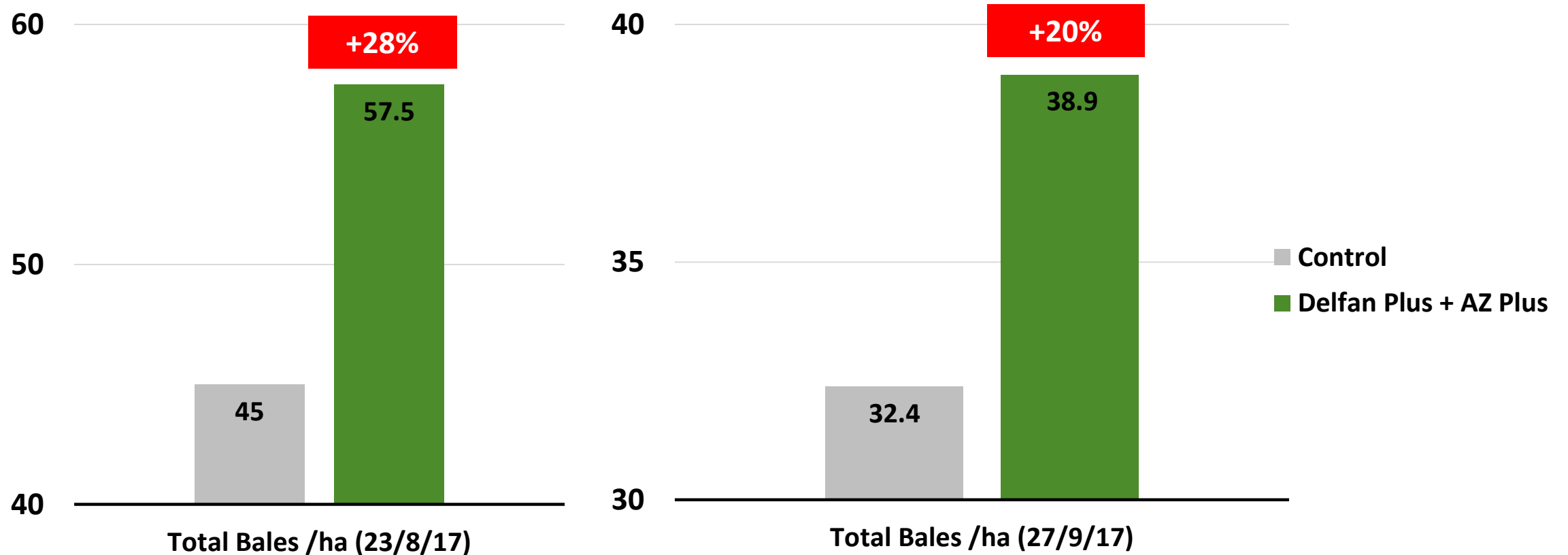


Delfan Plus & Tradecorp AZ

Plus

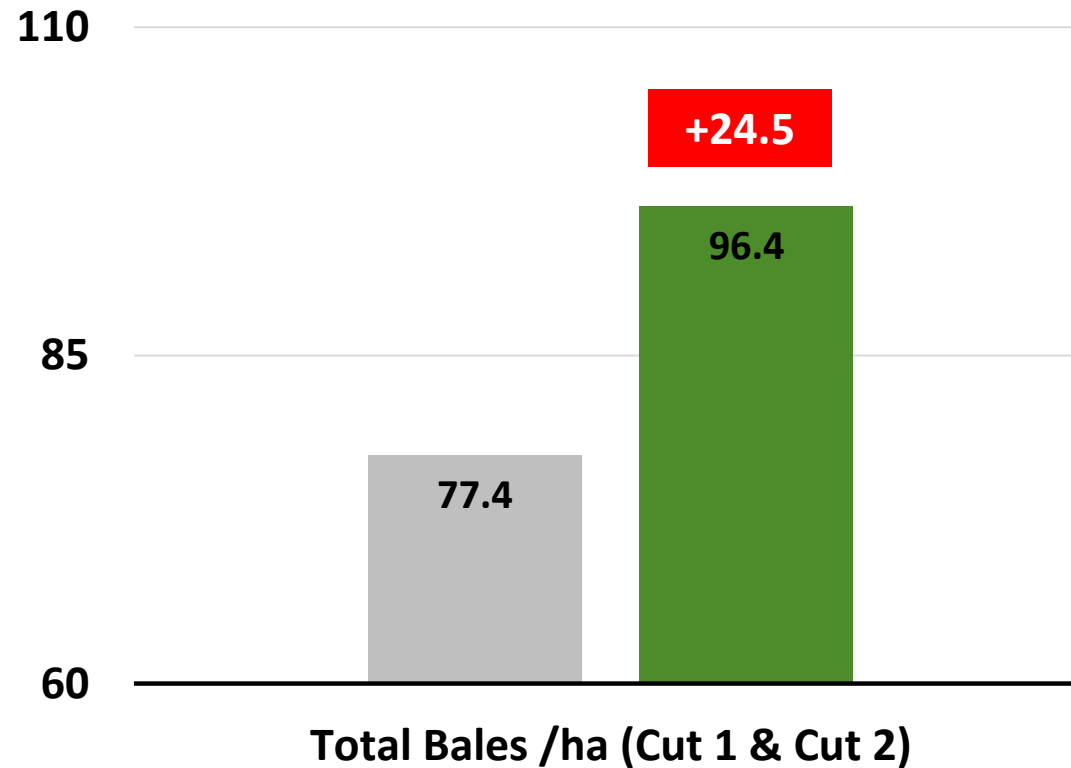


Results Cut 1 & 2: Total Bales



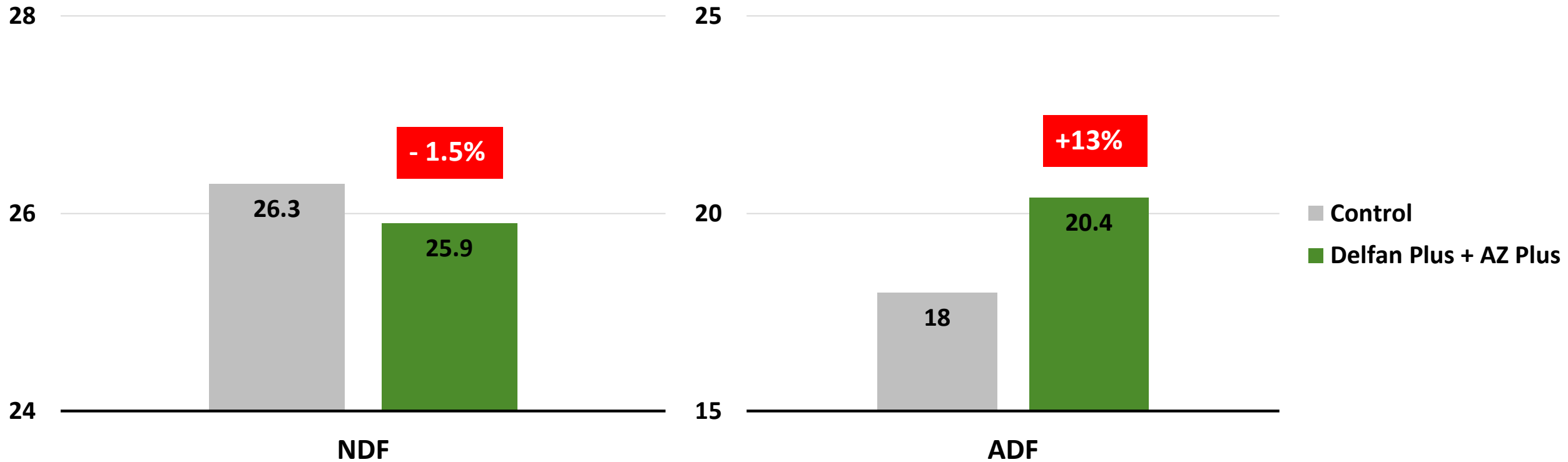
- Delfan Plus & TC AZ Plus increased Yield by 28% in Cut 1 & 20% in Cut 2
- Product was not reapplied between Cut 1 & Cut 2, the Tradecorp treatment effect was still lasting after 8 weeks

Results: Total Bales (Cut 1 & Cut 2)



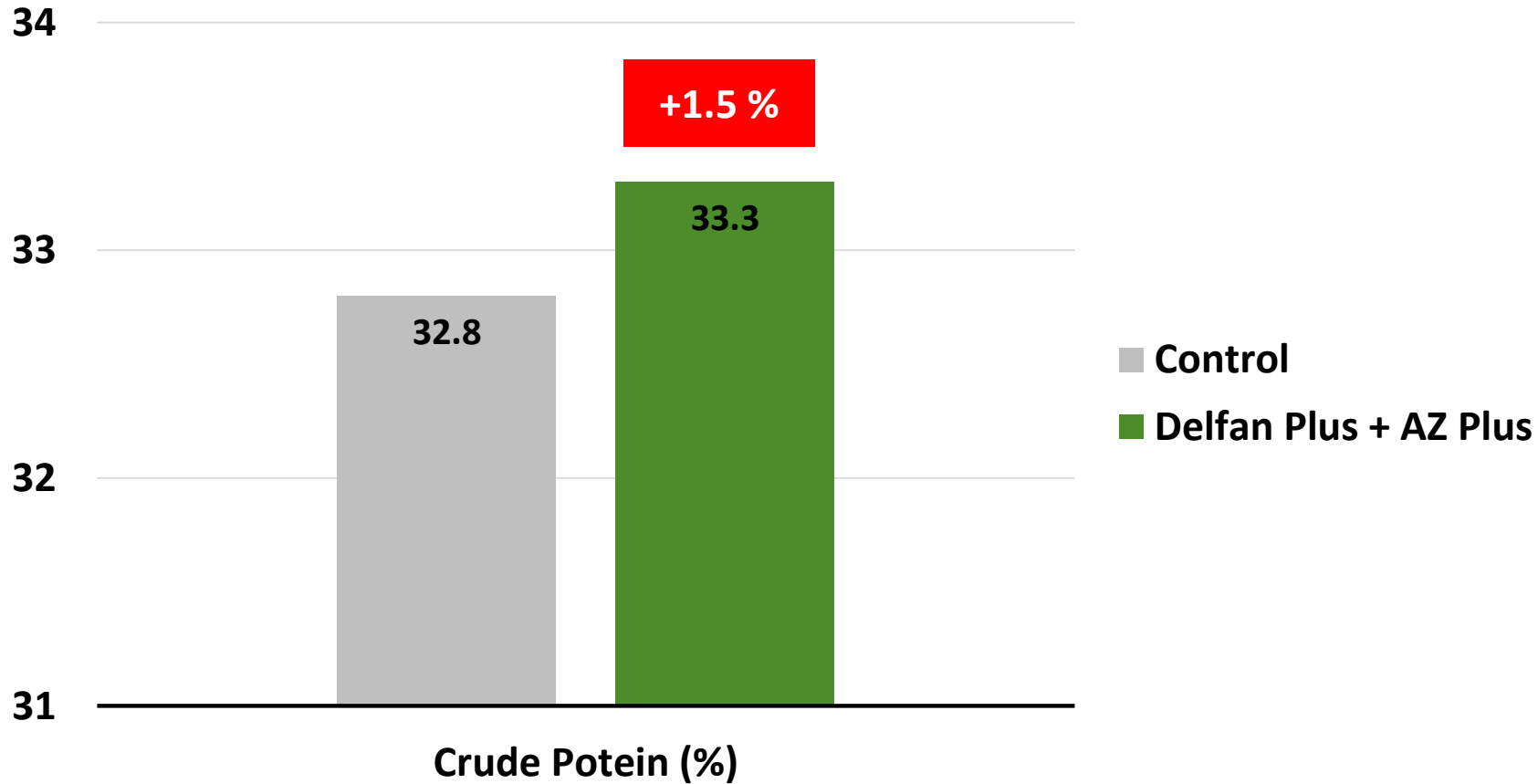
- Delfan Plus & TC AZ Plus increased Yield by 24.5% over 2 Cuts
- The effect was still apparent after 8 weeks and two cuts

Cut 1: Results - Neutral Detergent Fibre (% of dry matter)



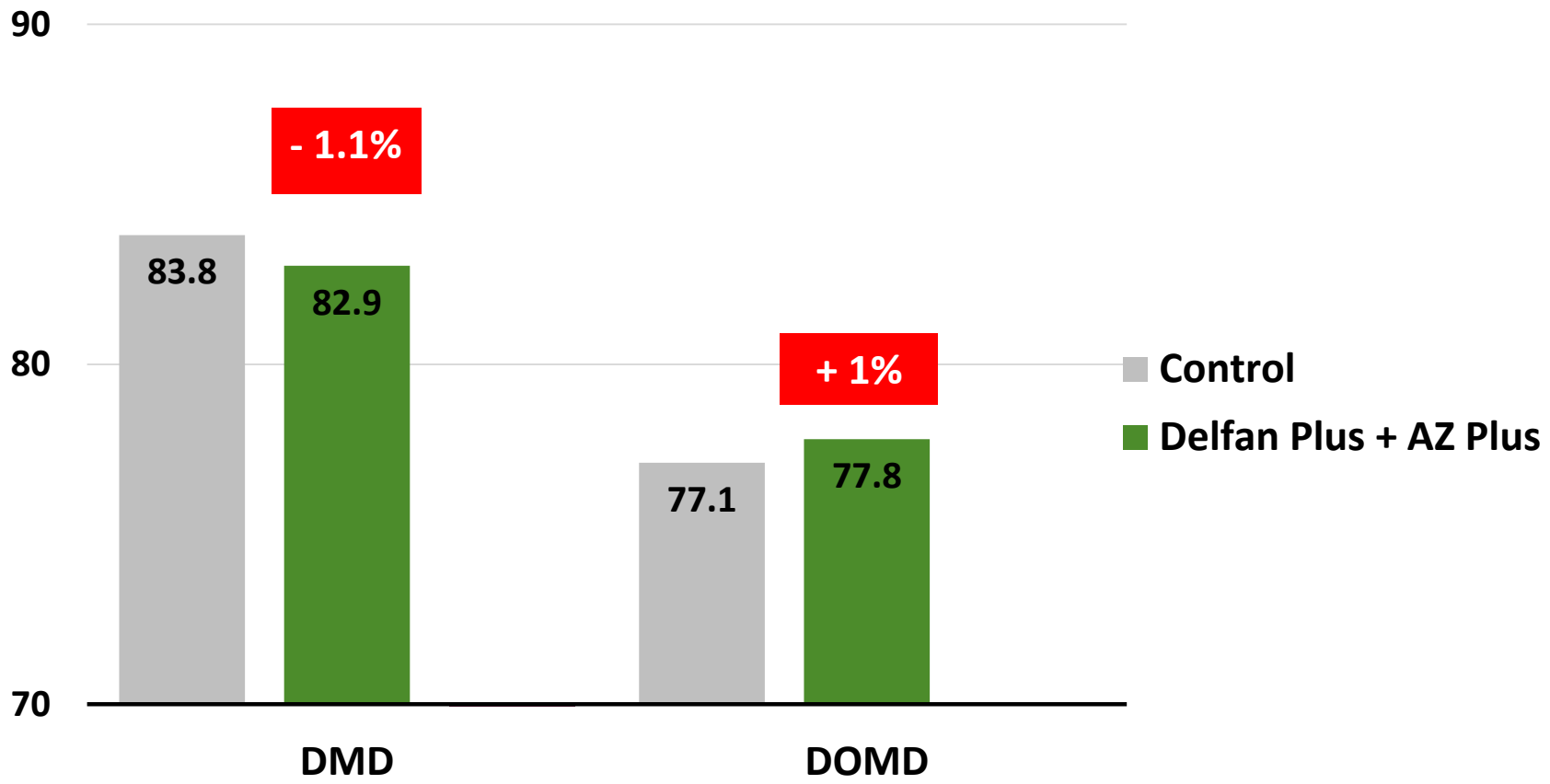
- NDF is reduced however, the ADF is increased in the Tradecorp treatment
- The hay should be examined to see if the mowing should be brought forward due to faster growth rate in the Tradecorp treatment

Cut 1: Results – Crude Protein (% of dry matter)



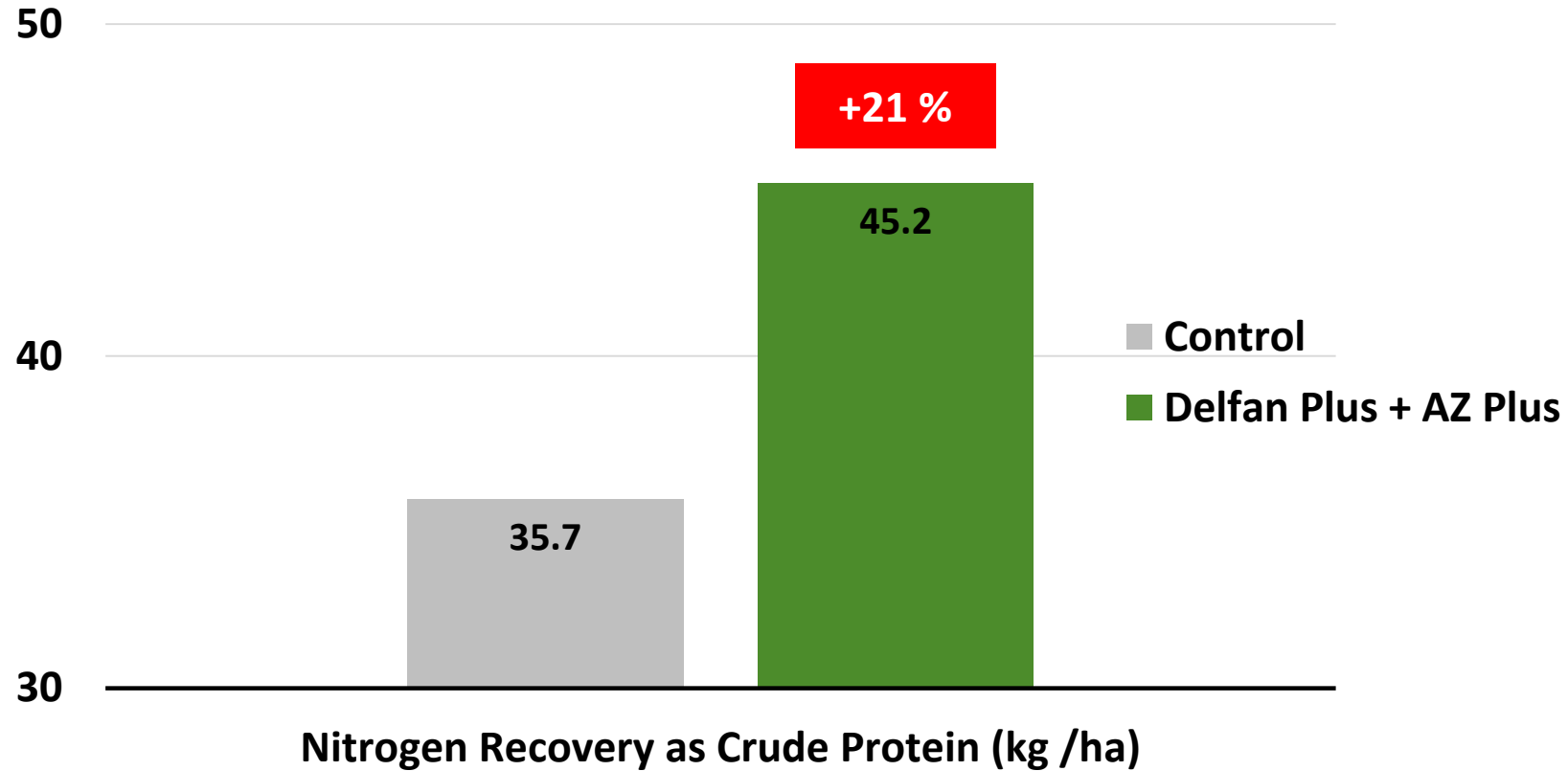
- Crude protein is increased in the Delfan Plus & Tradecorp AZ Plus treatment
- This combined with a Yield increase indicates no dilution of protein

Cut: 1 Results- DMD and DOMD



- The digestibility is similar indicating no dilution in feed quality despite increasing Yield by 29%
- Typically when Yield is increased a lot the feed quality can go down

Total Nitrogen Recovery & Efficiency



- Total Nitrogen (N) recovered in the 2 cuts was increased by 10 kg (+21%)
- This indicates either greater recovery of soil residual Nitrogen or increased production of Nitrogen by the Nitrogen fixing bacteria

Conclusion

- Delfan Plus & TC AZ Plus increased Yield 19 bales /ha (+24.5%)
- Delfan Plus & TC AZ Plus increased Crude Protein levels by 1.5% indicating no protein dilution
- Nitrogen use efficiency was increased by 21% indicating greater N recovery from the soil or increased N fixation by the N fixing bacteria, possibly due to the Co in AZ Plus
- We hypothesize that because the L-a amino acids in Delfan were incorporated quicker into the plant and made it easier for it to synthesize protein to increase growth
- Farmer indicated Delfan Plus + TC AZ Plus bails weigh heavy then control

**Delfan Plus 3L /ha & Tradecorp AZ Plus 2kg /ha
increased the bottom line by \$113 after inputs
ROI to farmer is 1:1.5**



Hay Analysis Results - All Parameters

Crude Protein	Acid Detergent Fibre	Neutral Detergent Fibre	Dry Matter Digestibility	Dry Organic Matter Digestibility	Metabolisable Energy
CP	ADF	NDF	DMD	DOMD	ME

Control	32.8	18.0	26.3	83.8	77.8	12.8
Tradecorp Treatment	33.3	20.4	25.9	82.9	77.1	12.6