

# Preplant and Preemergence Palmer amaranth Control in Grain Sorghum for the Texas High Plains

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# Introduction

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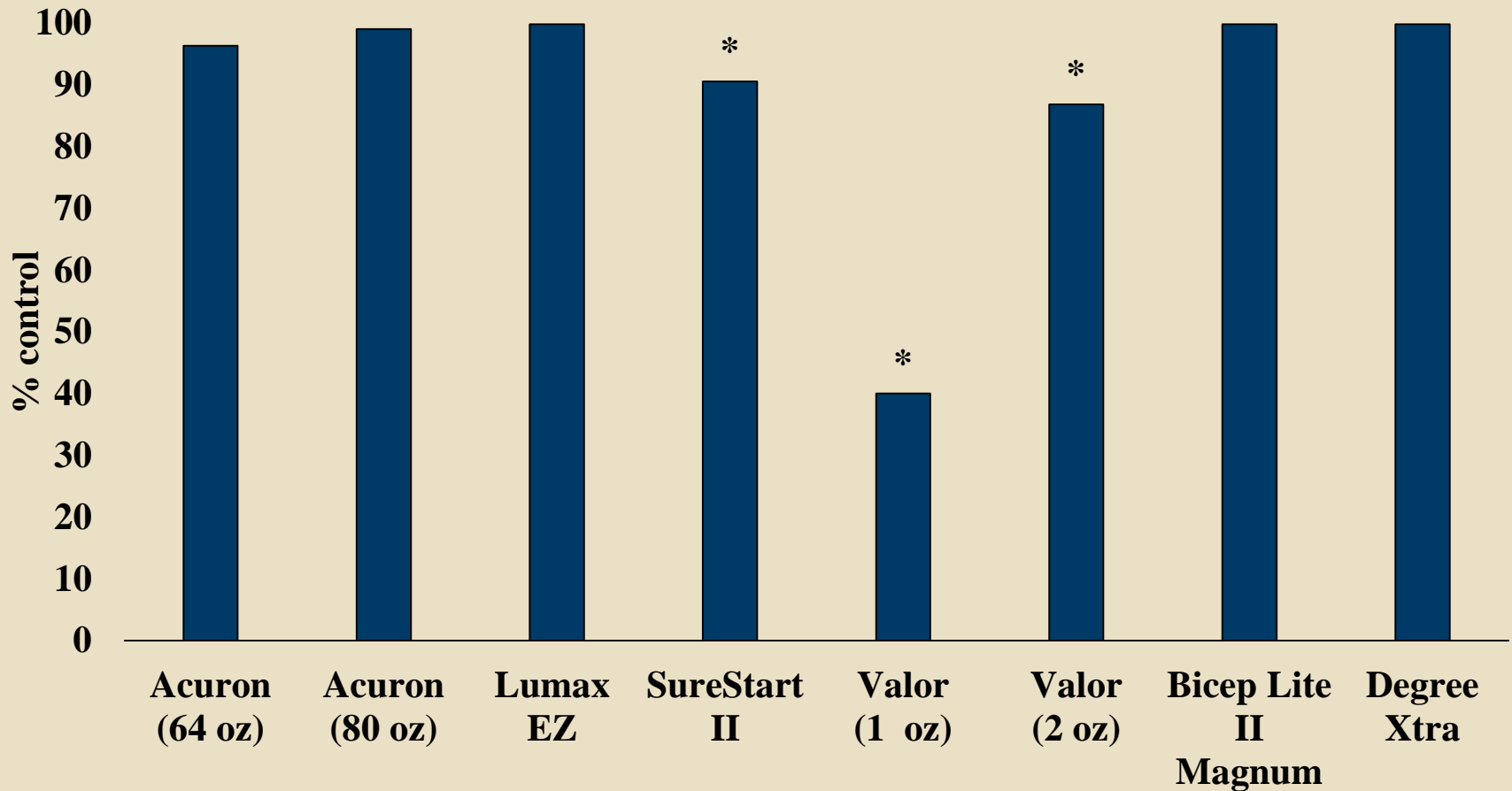
- Herbicide options in grain sorghum are more limited than in other agronomic crops
- Palmer amaranth is especially problematic due to limited postemergence options that will not affect rotational crops such as cotton
- Effective season-long Palmer amaranth control using soil-applied residual herbicides is critical to profitable grain sorghum production

# Objective

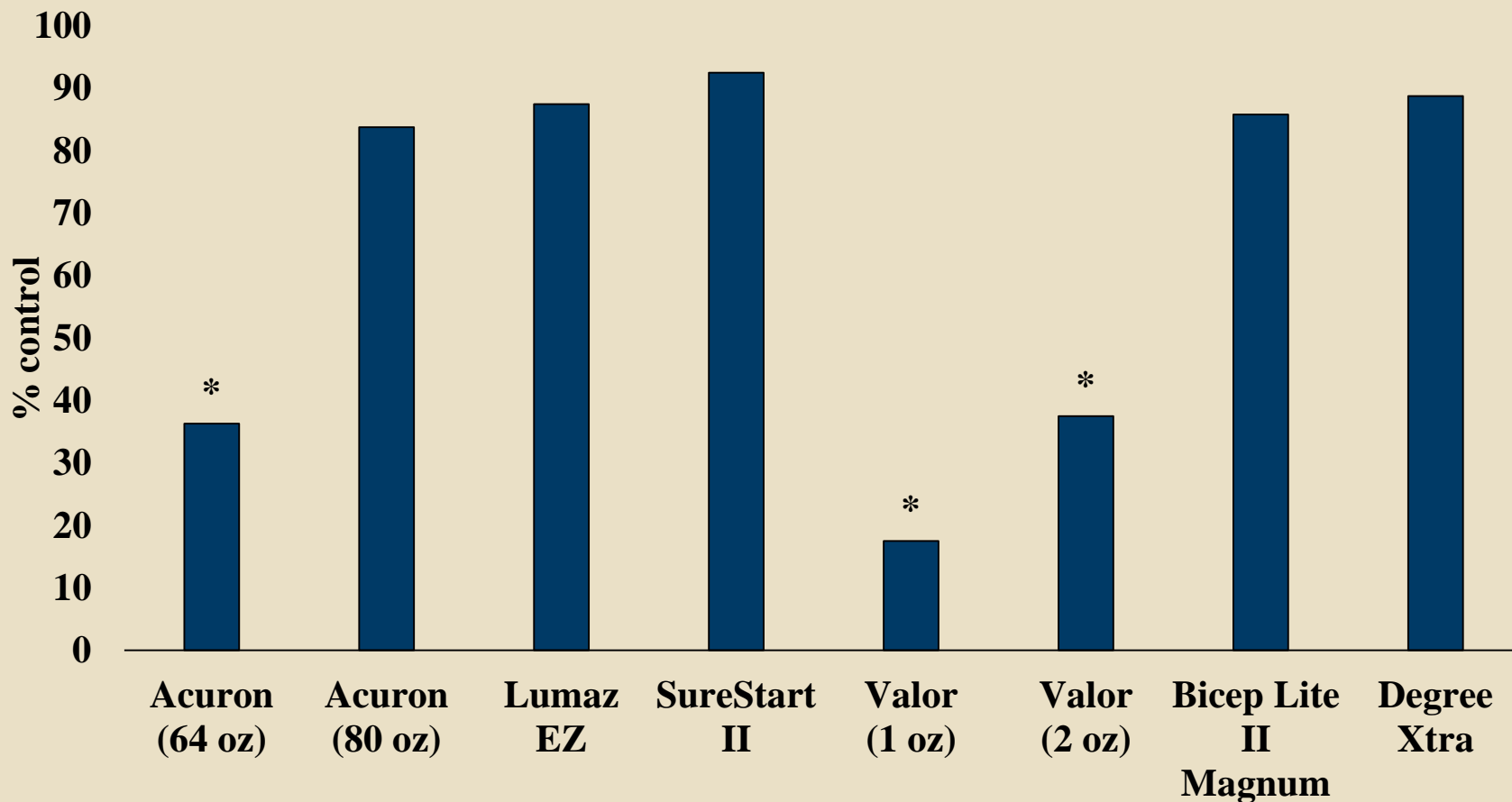
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- Evaluate registered and non-registered herbicides applied early preplant or preemergence for crop response and Palmer amaranth control in grain sorghum.

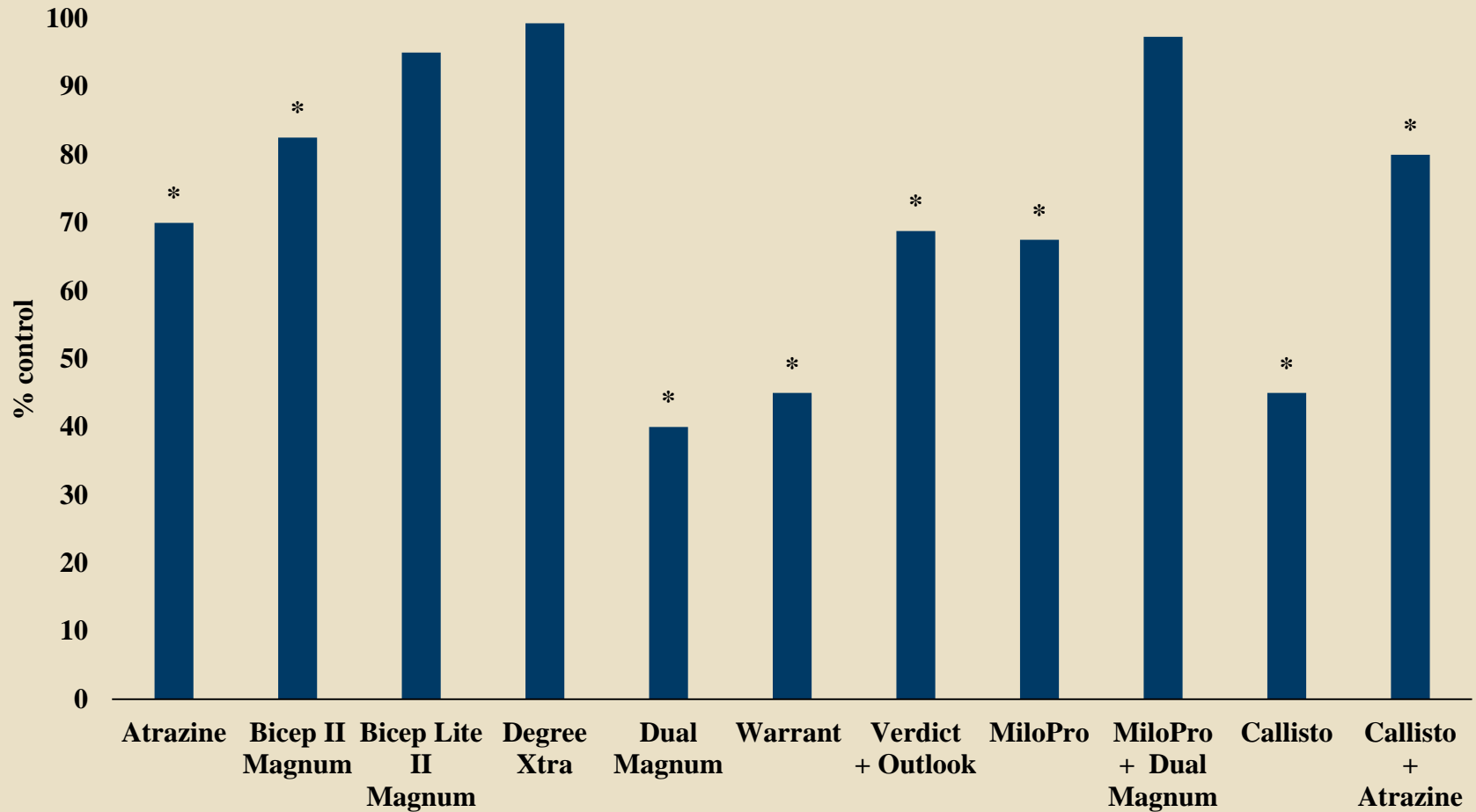
# Results - Early Preplant 2017



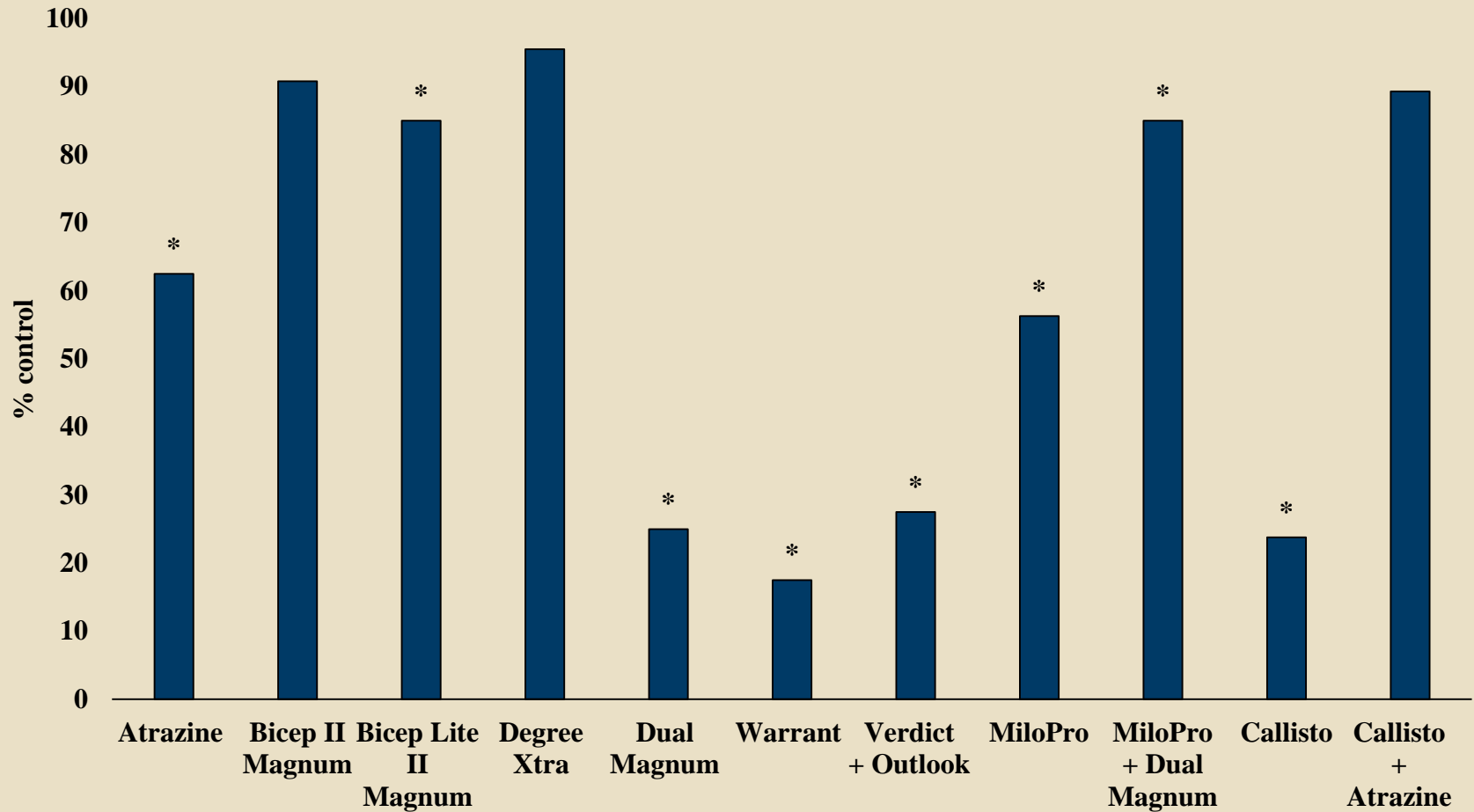
# Results - Early Preplant 2018



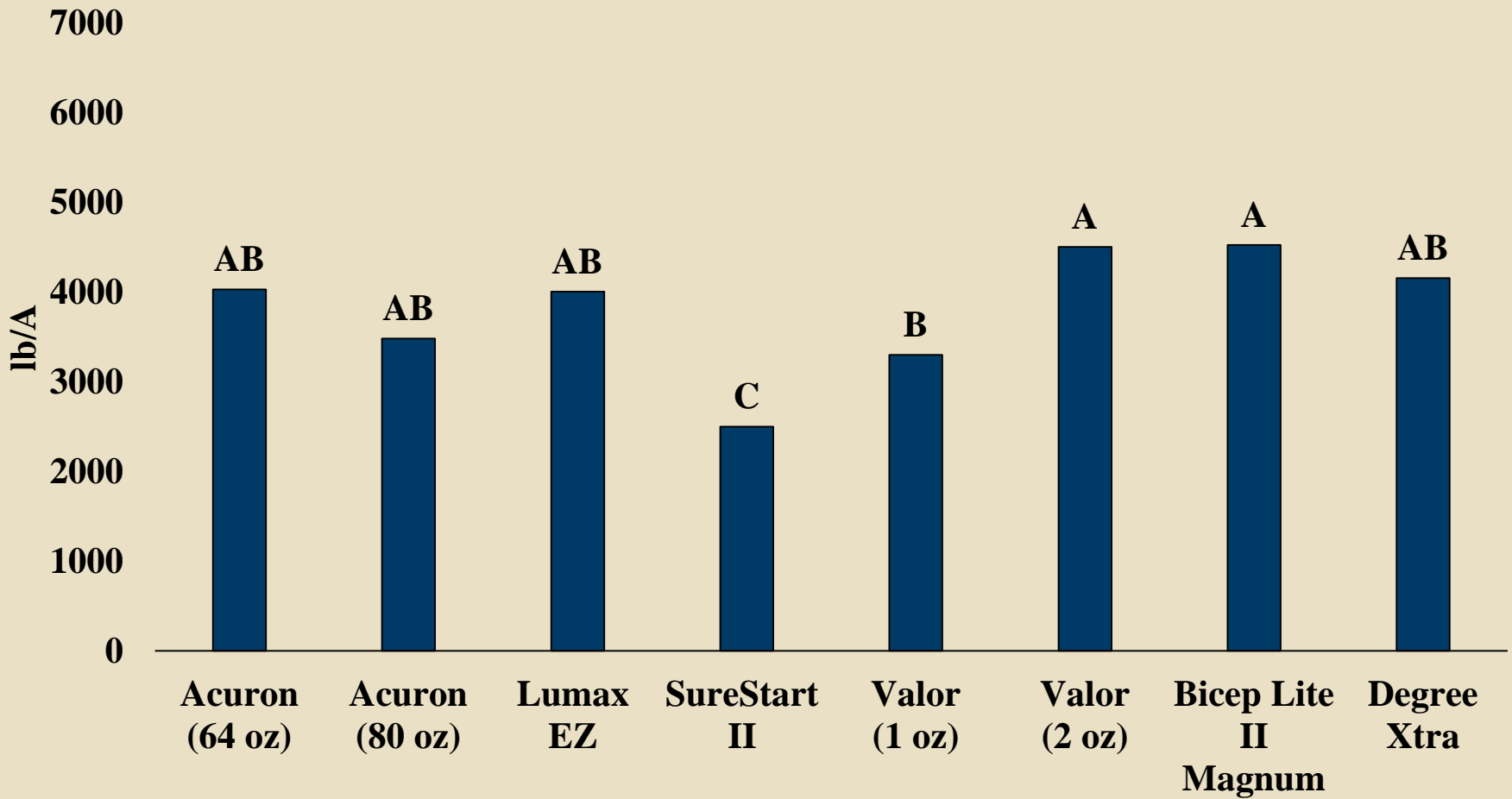
# Results - Preemergence 2017



# Results - Preemergence 2018

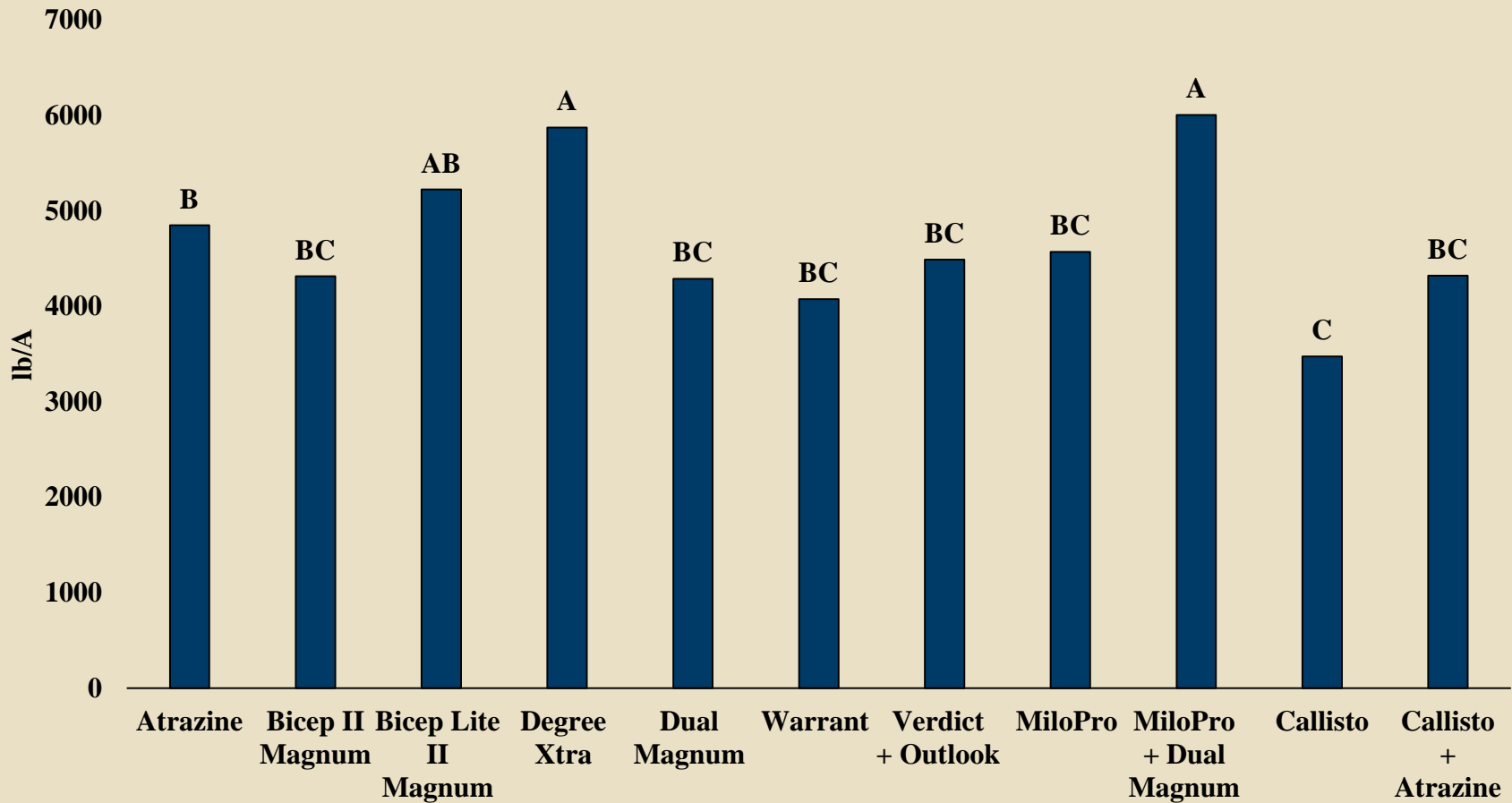


# Results - Sorghum Yield EPP 2017





# Results - Sorghum Yield PRE 2017



# Early-season

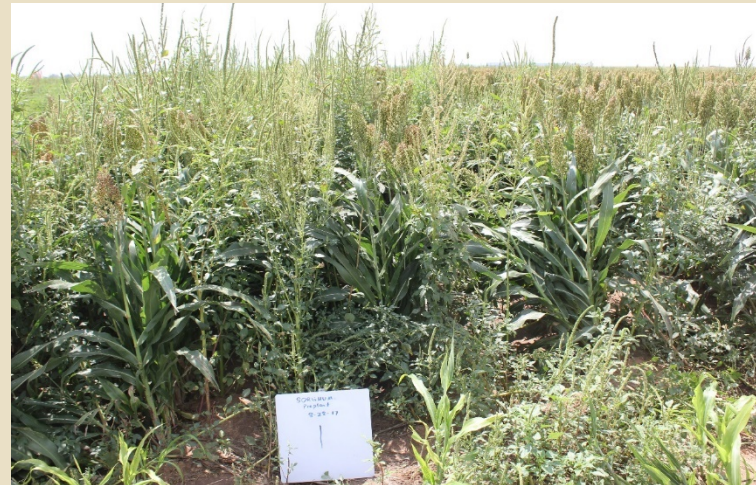


Untreated



Degree Xtra PRE

# Late-season



Untreated



Degree Xtra PRE

# Summary

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- Effective season-long Palmer amaranth control (>90%) was achieved in both years with Lumax EZ, Bicep Lite II Magnum, and Degree Xtra applied EPP.
- Effective season-long Palmer amaranth control was achieved in both years with Degree Xtra, Bicep Lite II Magnum, and MiloPro + Dual Magnum applied PRE.
- Injury was observed with SureStart II (15%) applied EPP which is not registered for use in sorghum. No other EPP or PRE herbicides injured sorghum (data not shown).
- Tank-mixes or premixes with two active ingredients or more effectively controlled Palmer amaranth compared to Atrazine, Dual, Warrant, or Callisto alone.

# Questions?

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