

N P K Studies in Sugarcane

Louisiana Agricultural Technology & Management Conference
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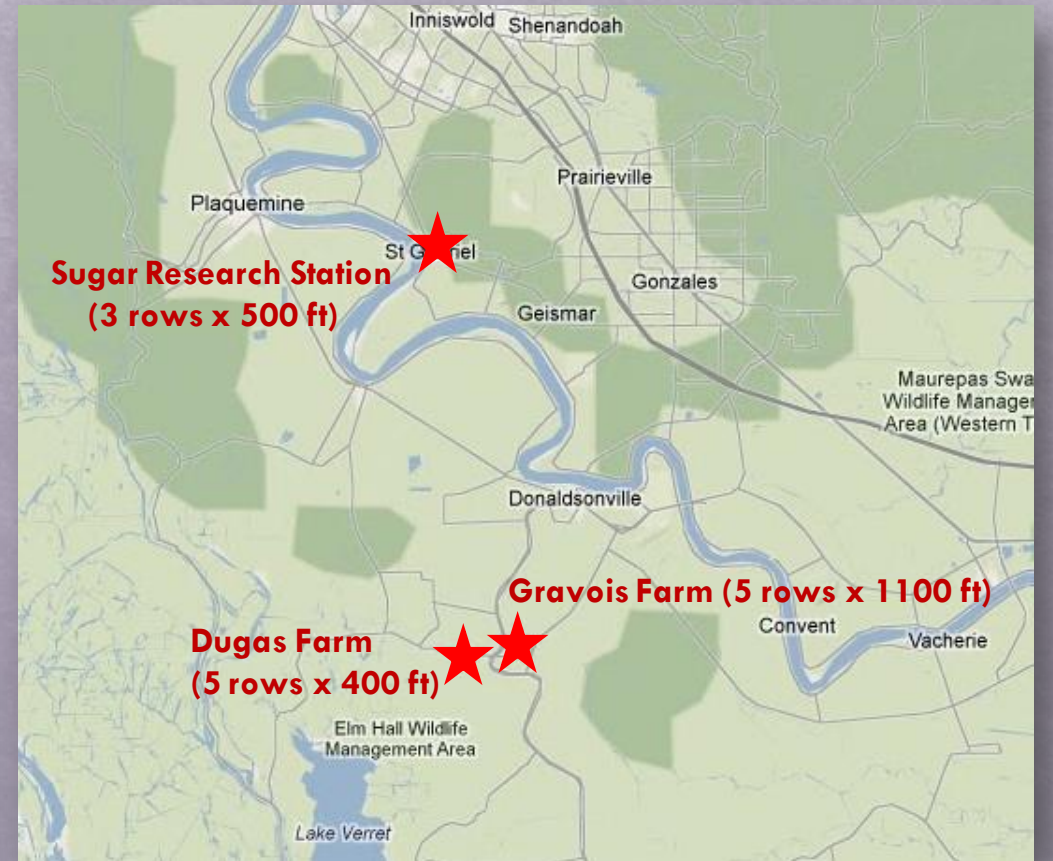
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Different Nitrogen Recommendation Approach

On-Farm Demonstration 2013

- ◇ Replicated 3 times
- ◇ Established at 3 locations
- ◇ Plots size
 - ◇ Sugar Research Station – 9000 ft²
 - ◇ Gravois Farm – 33,000 ft²
 - ◇ Dugas Farm – 12,000 ft²



Results

Table 1. Nitrogen rate, sugar yield and net return of sugarcane under different N recommendation approach.

Site	N Approach	N Applied lbs/ac	Sugar Yield lbs/ac	Income: Sugar yield		Saving: N fertilizer		Net \$/ac
				lbs/ac	\$/ac	lbs/ac	\$/ac	
<u>Dugas</u>	Current/Farmer's Soil test NO ₃ Sensor-Based							
Gravois	Current/Farmer's Soil test NO ₃ Sensor-Based							
SRS	Current/Farmer's Soil test NO ₃ Sensor-Based							

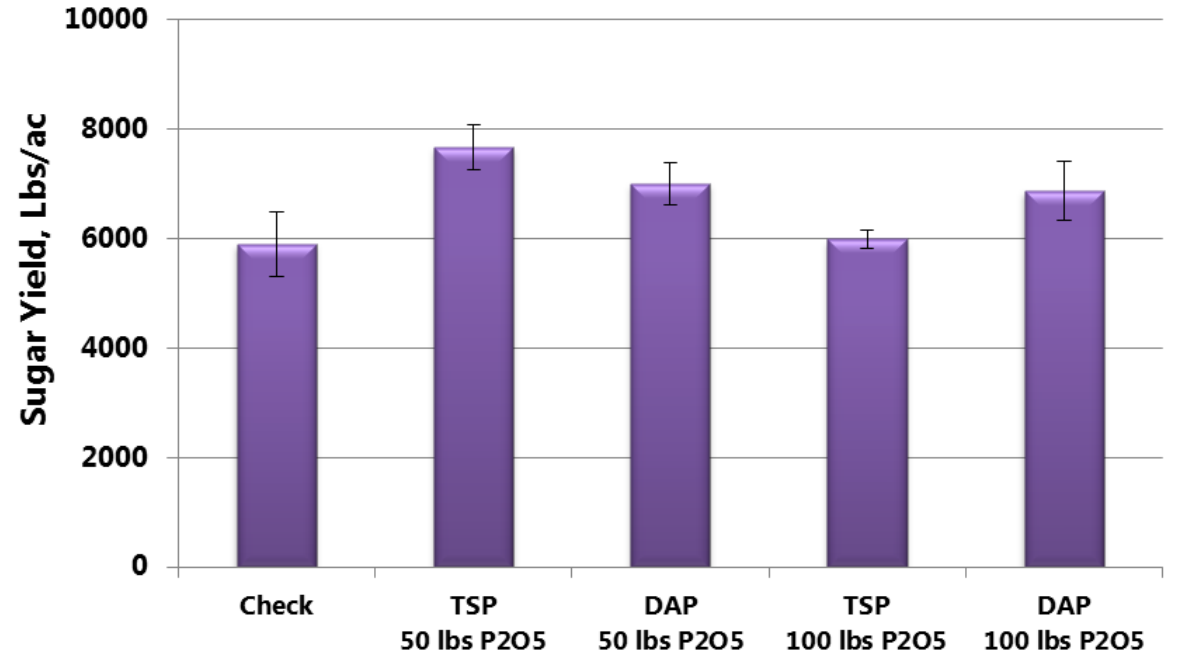
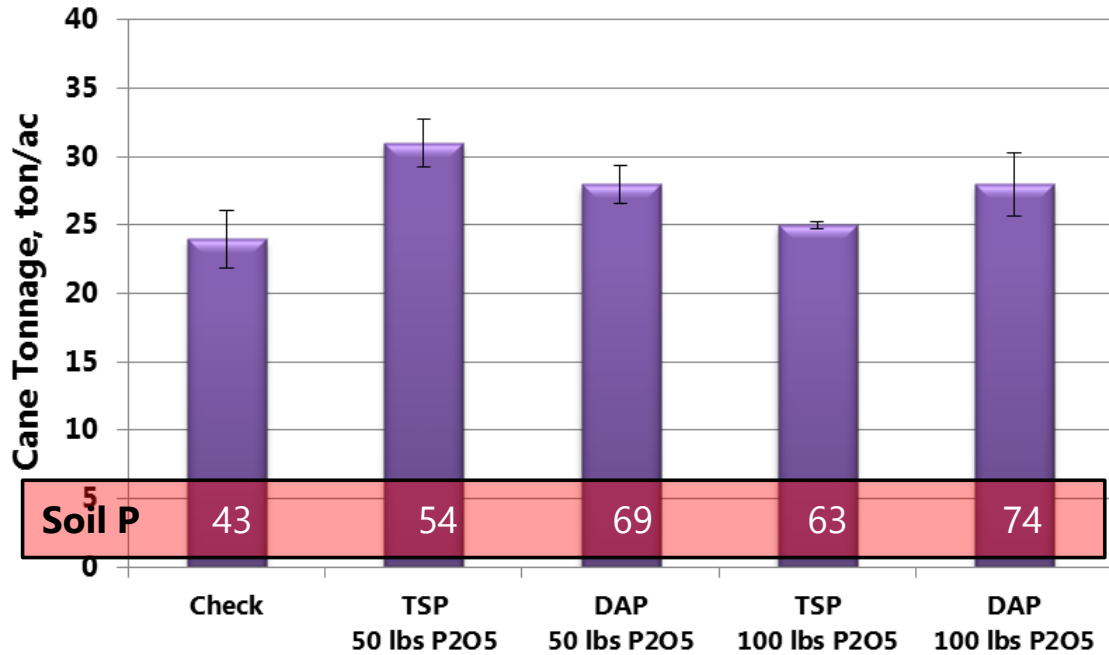
SRS – LSU AgCenter Sugar Research Station

Raw sugar price - \$0.20/lb

Price of N fertilizer - \$0.60/lb

Current/Farmer's Standard Practice – reference to compute for economic return

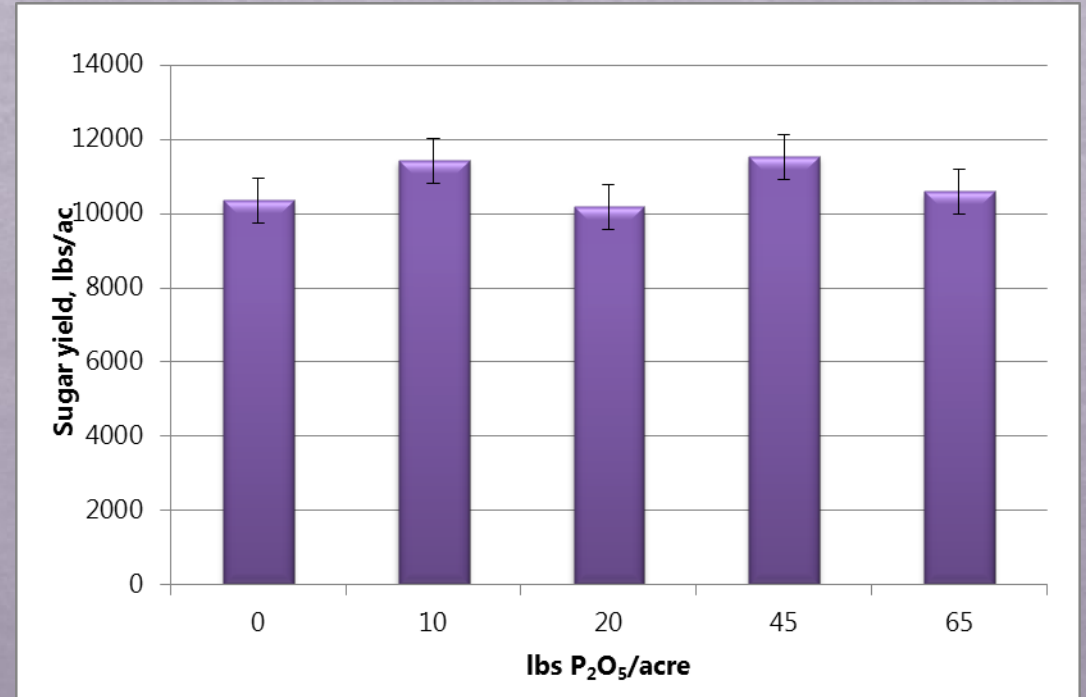
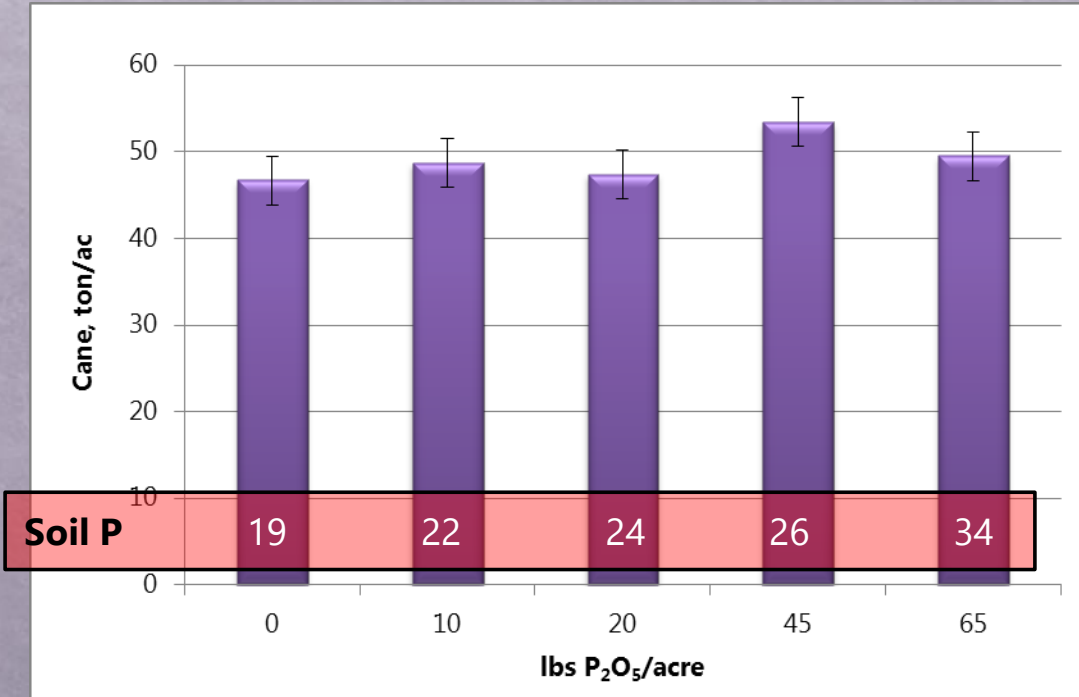
Phosphorus Studies



NOTES:

540 – 2nd stubble, 2011; heavy-textured soil
TRS – no response to P rate and source
Based on contrast analysis – source had no effect

Phosphorus Studies

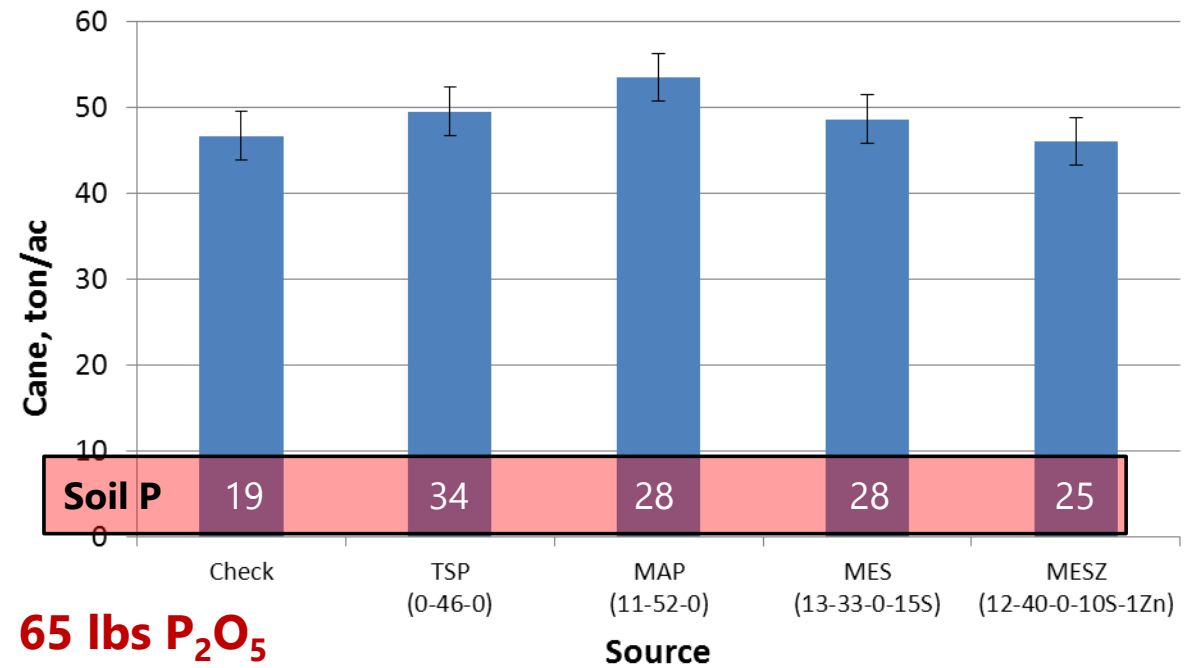
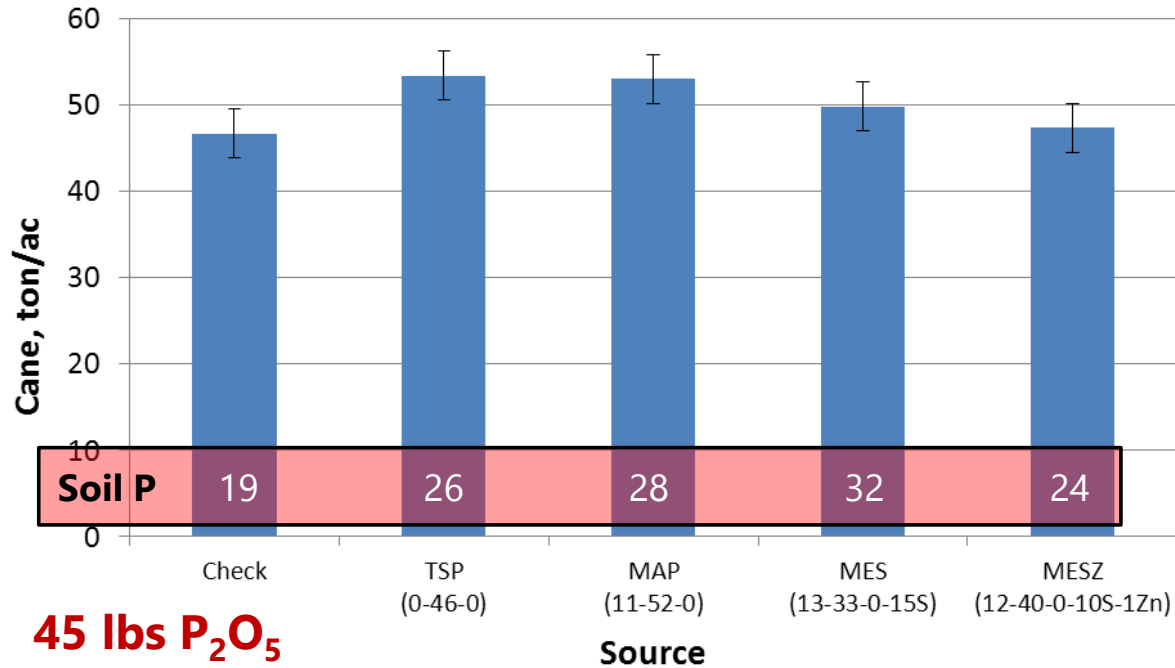


NOTES:

L01-299 Plant cane, 2013

TRS – reduced with increasing P rate

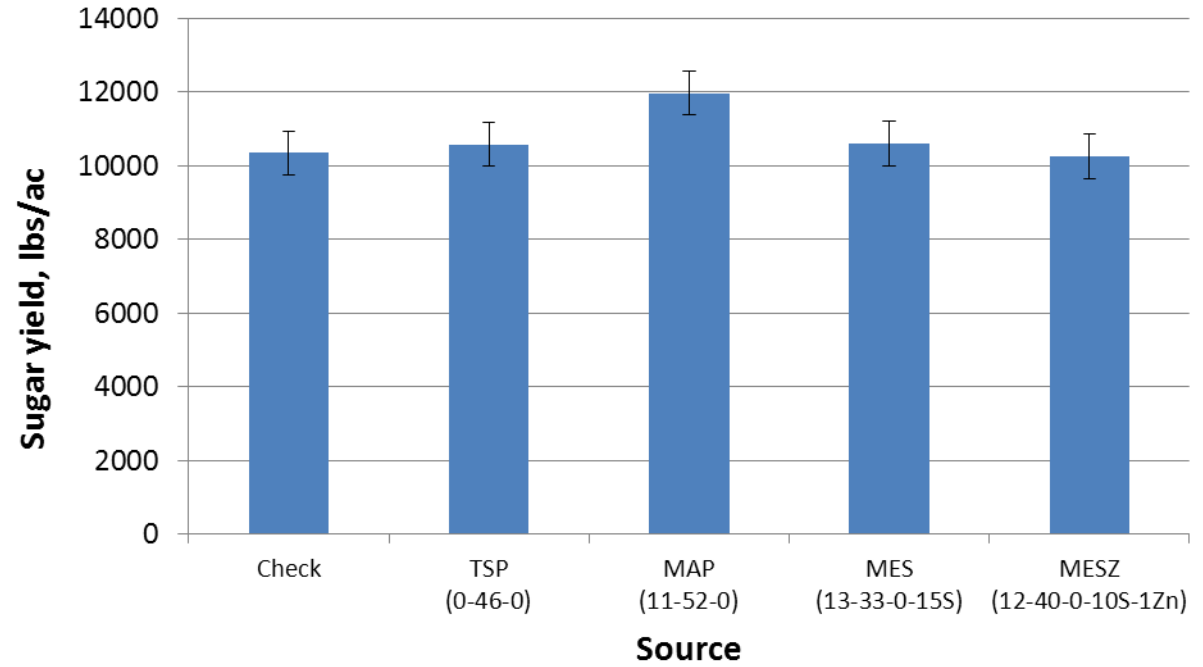
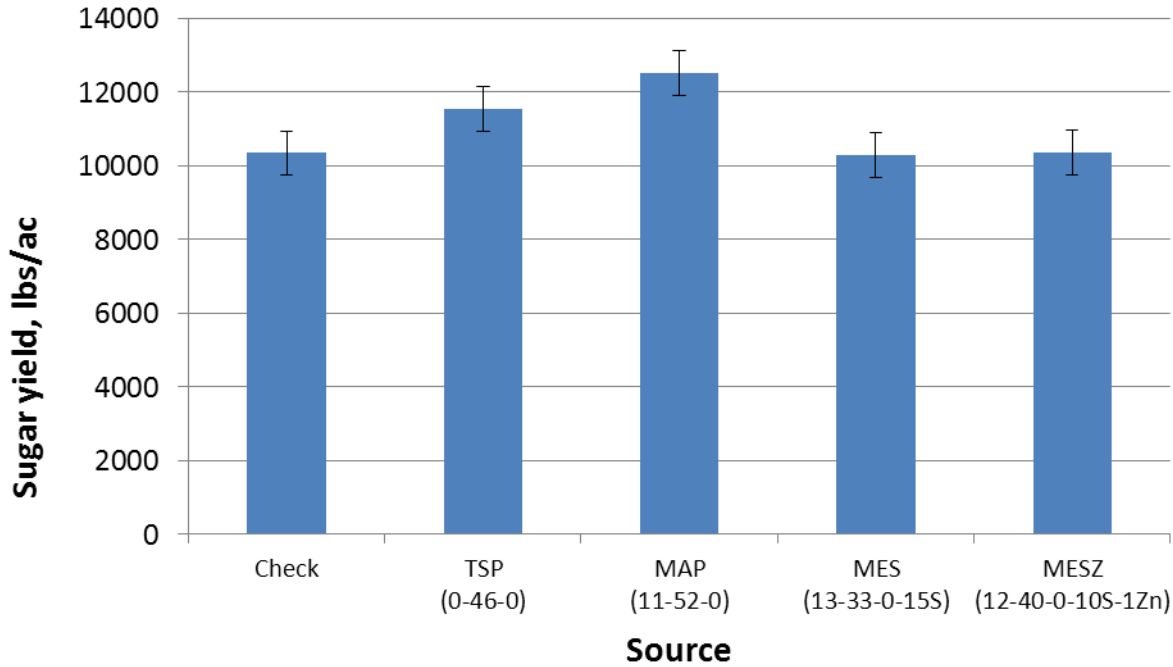
Phosphorus Studies



NOTE:

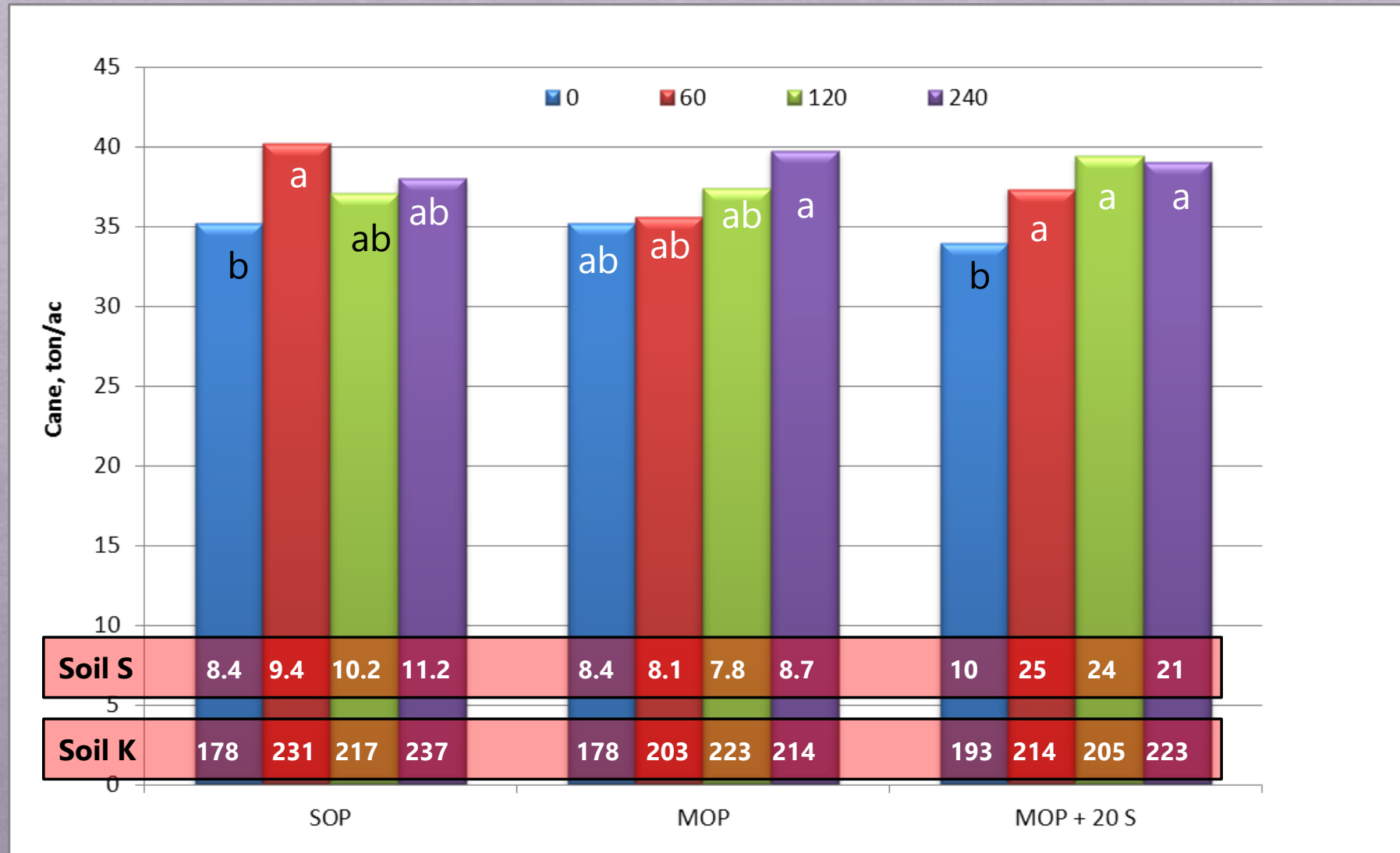
L01-299 Plant cane, 2013; coarse textured soil

Phosphorus Studies



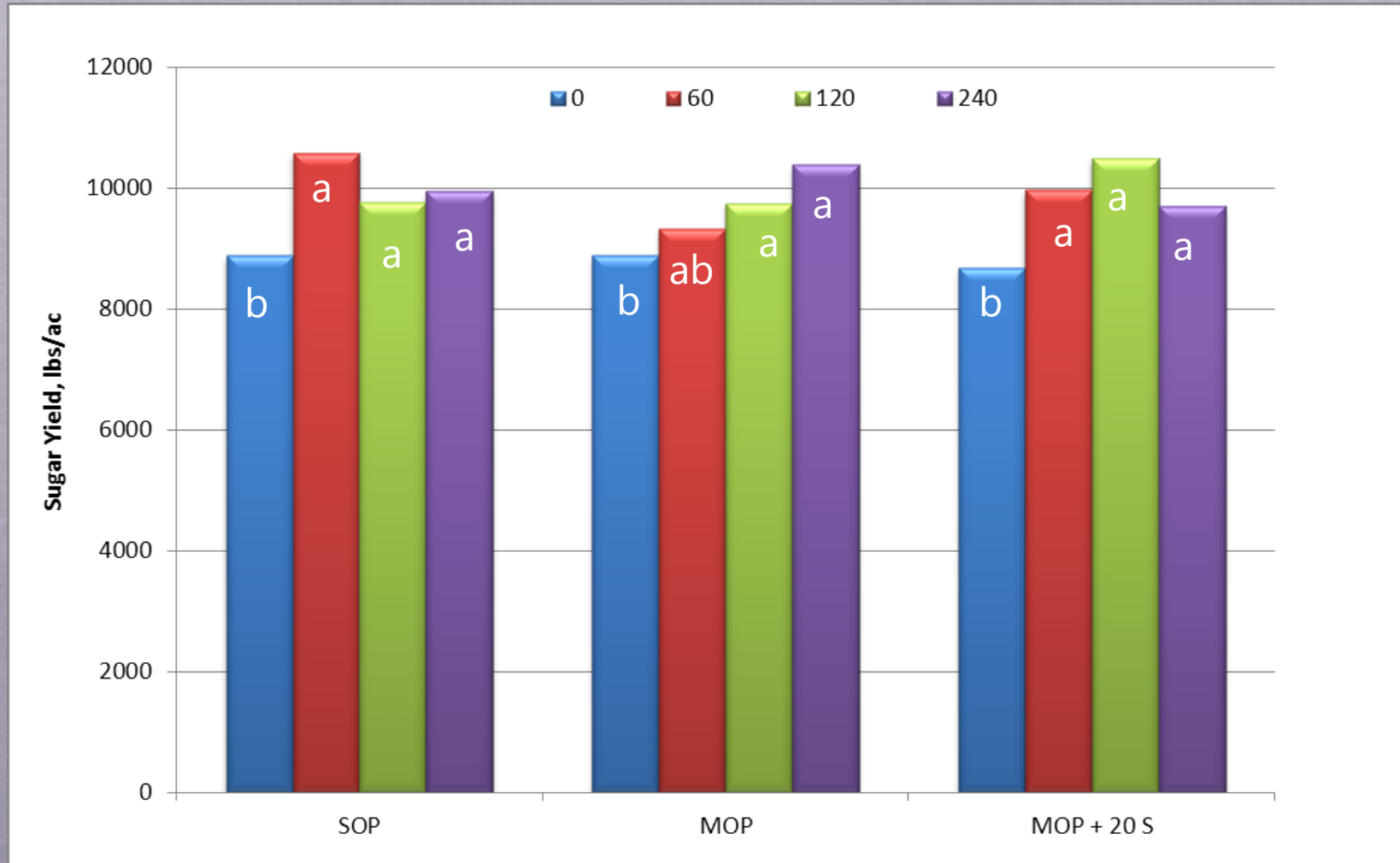
NOTE:
L01-299 Plant cane, 2013

Potassium Studies



NOTE:
540 1st Stubble Cane, 2010; Heavy textured soil

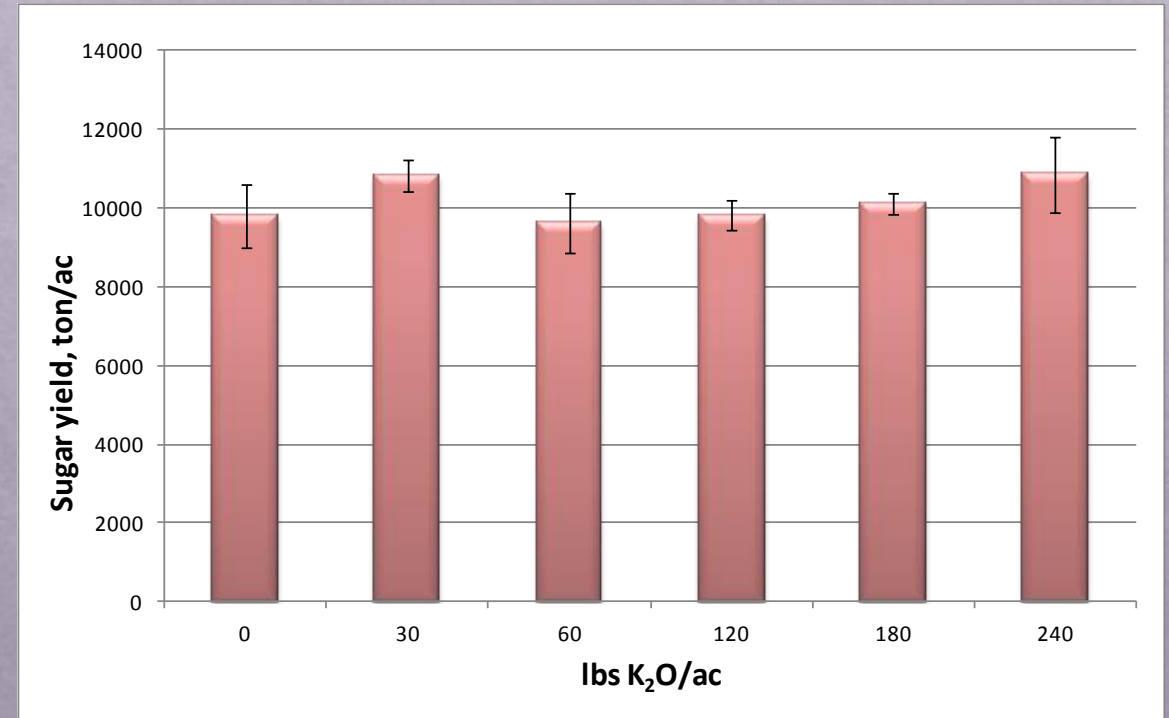
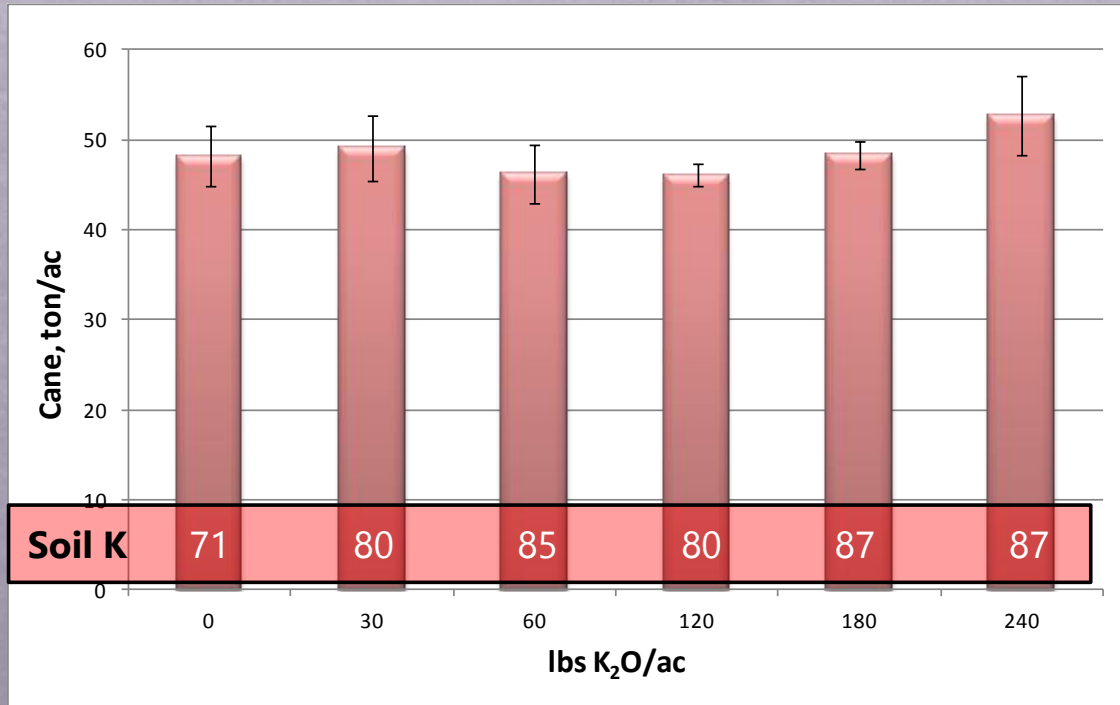
Potassium Studies



NOTE:

540 1st Stubble Cane, 2010

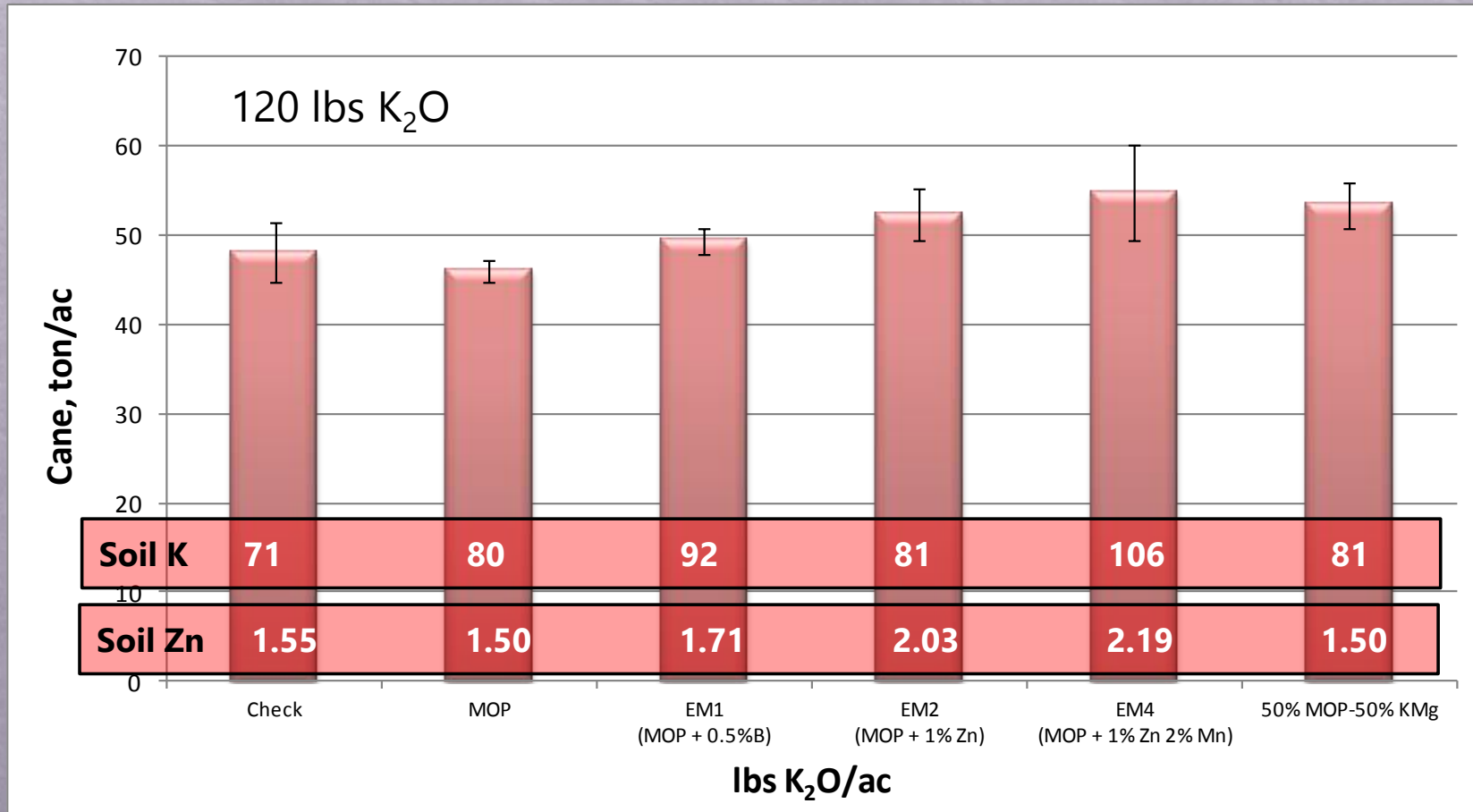
Potassium Studies



NOTE:

L01-299 Plant cane, 2013; Coarse-textured soil

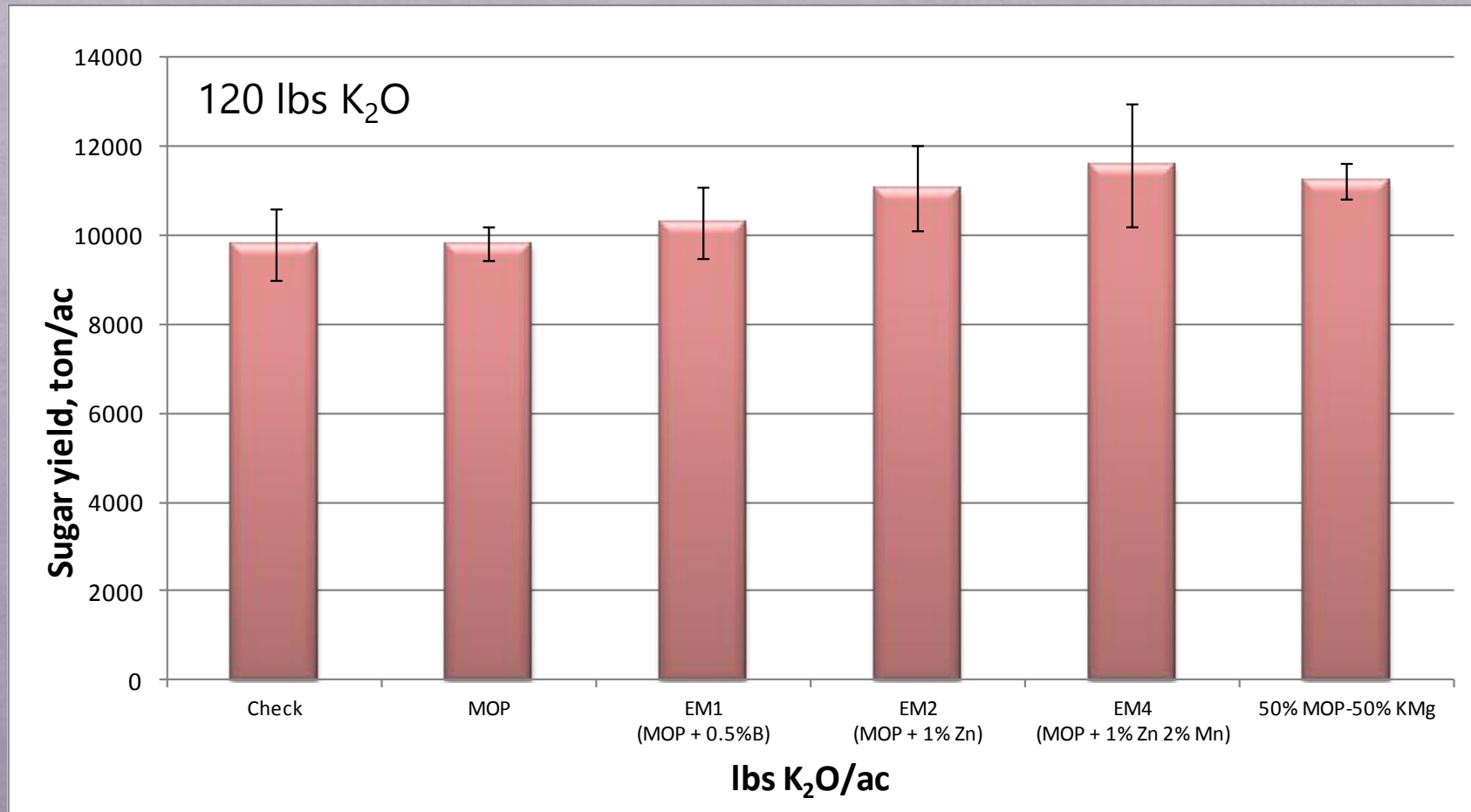
Potassium Studies



NOTE:

L01-299 Plant cane, 2013

Potassium Studies



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L01-299 Plant cane, 2013

Questions?