



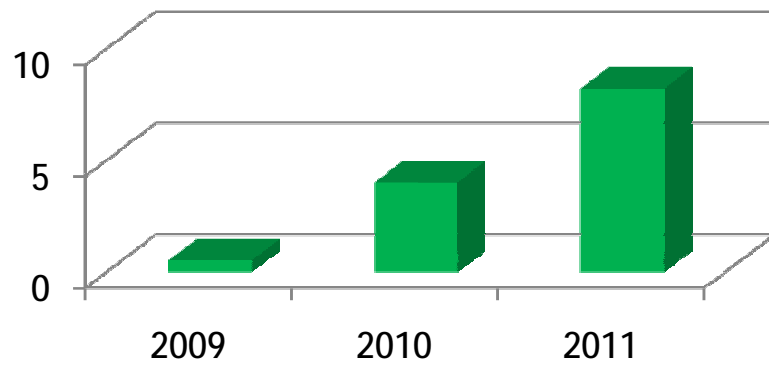
L 01-283 Off-types

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Herman L. Waguespack**

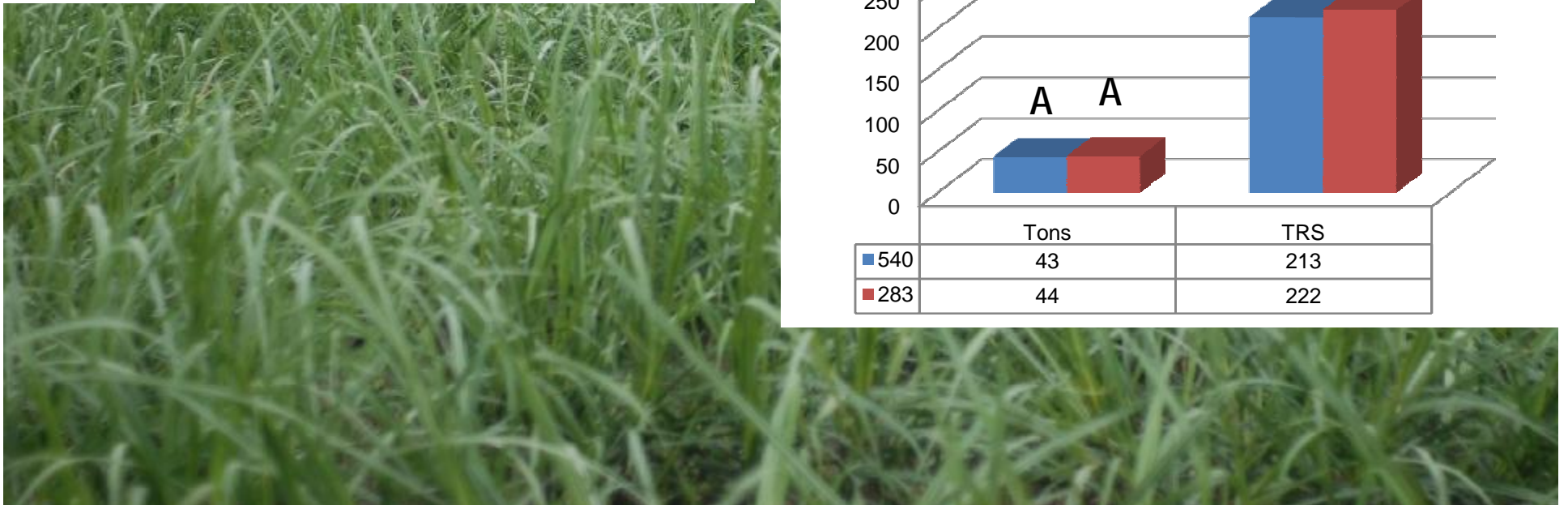
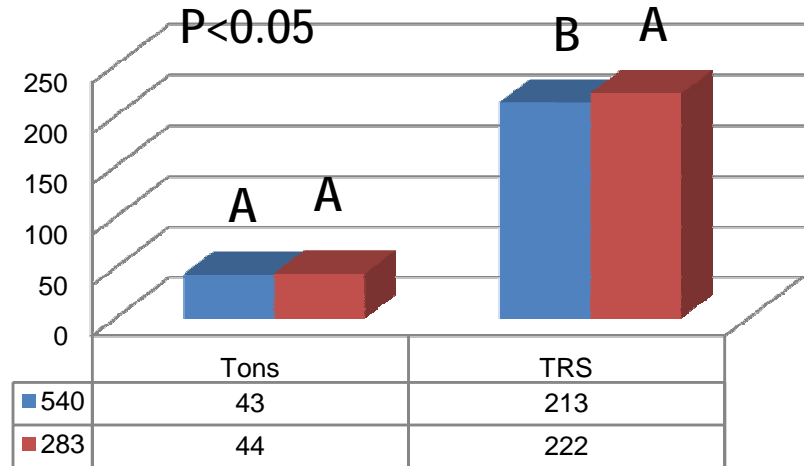
**Louisiana Agricultural Technology and Management
Conference – February 17, 2012 – Marksville, LA**

L 01-283 released in 2008

Percent in State



Schriever, LA 2009



Off-types



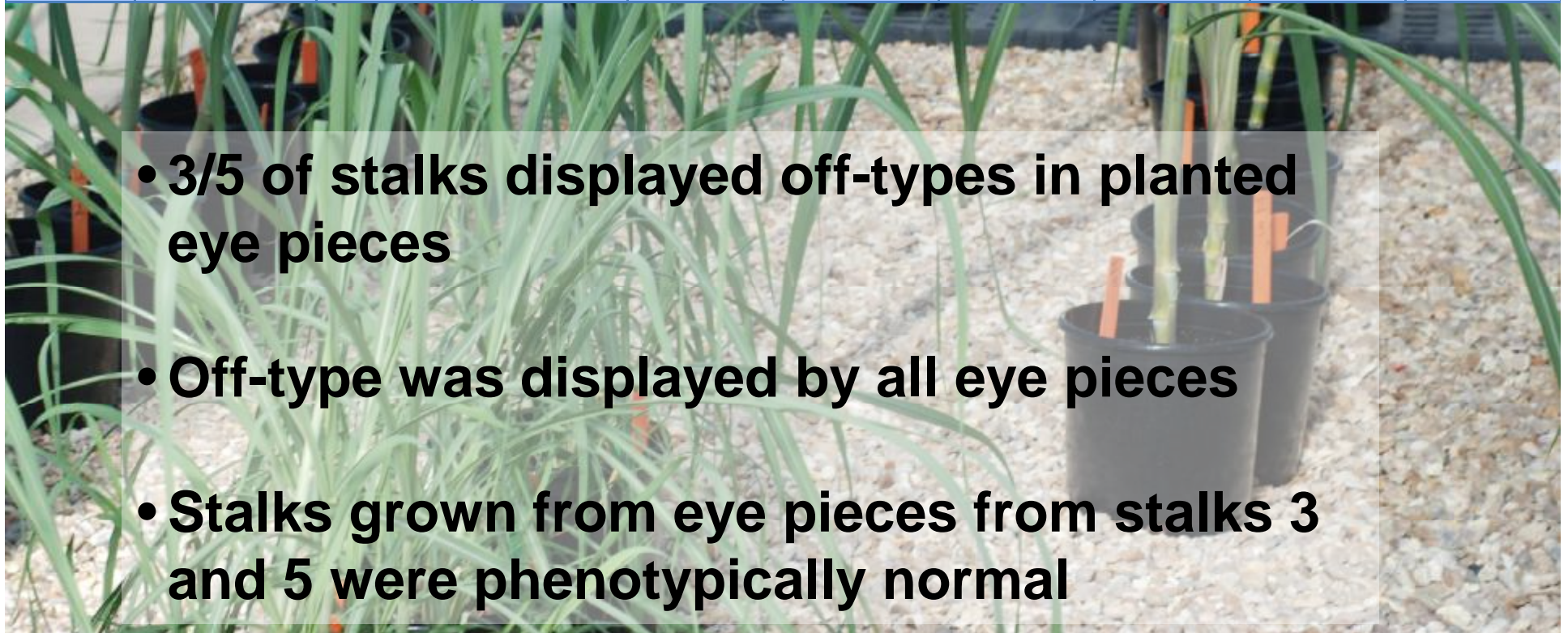
- Twisted leaves
- Split stalks
- Reddening of damaged areas
- Growing points break off
- Germinating eyes

Greenhouse Exp

- 5 normal stalks cut from Palo Alto secondary station during grinding of 2010.
- Each stalk eye-pieced and planted in greenhouse in Houma over winter 2010-2011.
- Stalks assessed for off-type/normal phenotype in April 2011.



		----- Eye piece from original stalk -----							
Stalk #	Phenotype	1	2	3	4	5	6	7	8
1	Normal	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type
2	Normal	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type
3	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal
4	Normal	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type	Off-type
5	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal	Normal



- 3/5 of stalks displayed off-types in planted eye pieces
- Off-type was displayed by all eye pieces
- Stalks grown from eye pieces from stalks 3 and 5 were phenotypically normal

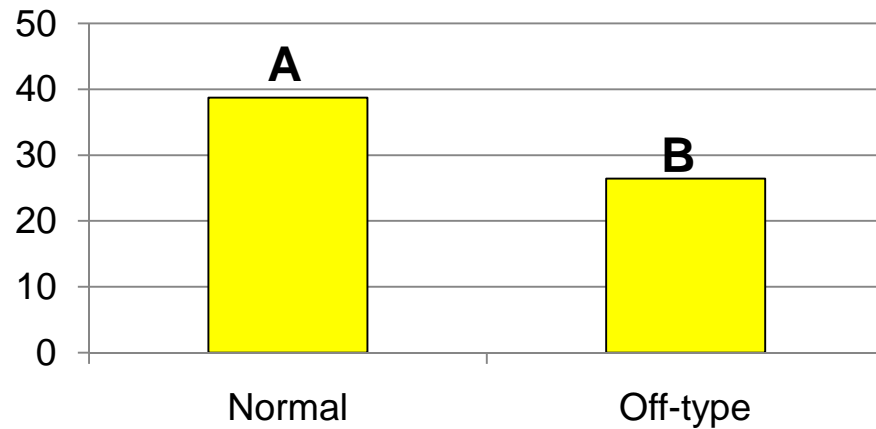
**April 2011 – USDA
Farm in Schriever**





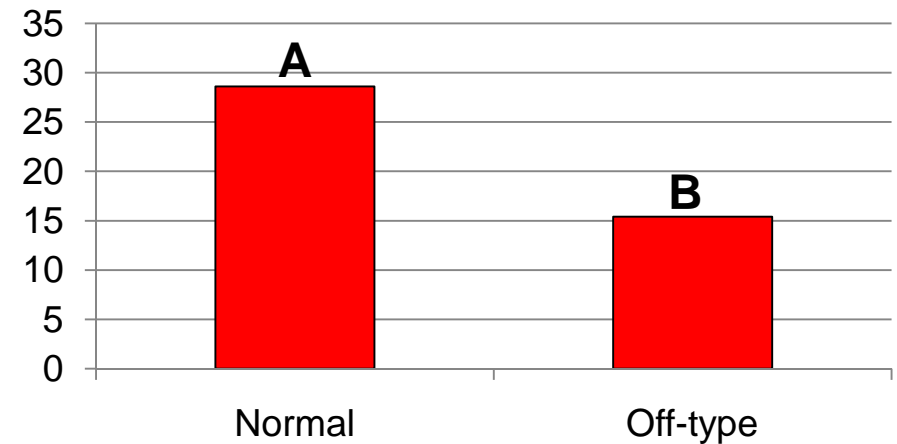


Length (feet/stool)

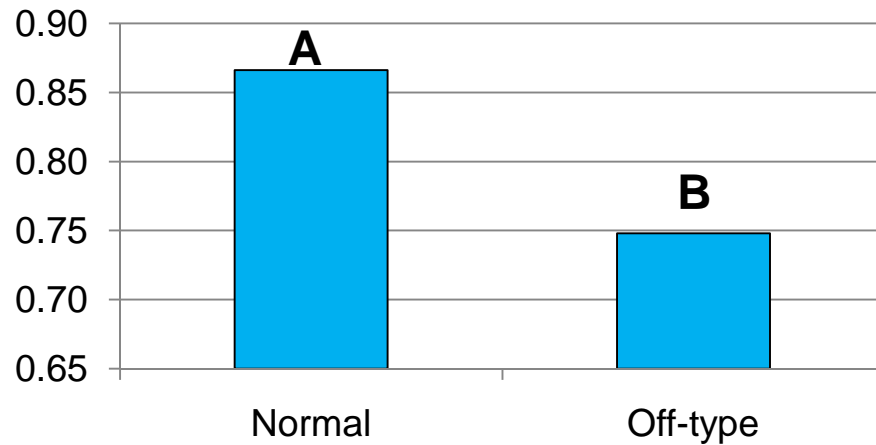


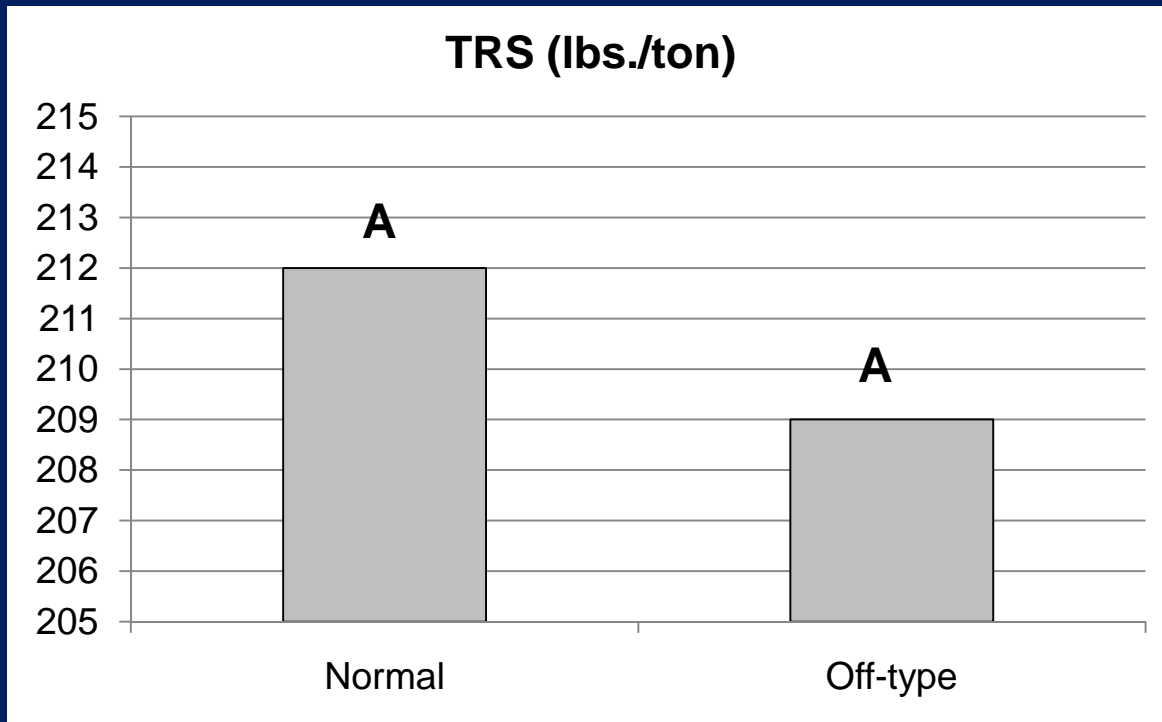
P<0.05

Weight (lbs. stalks)



Stalk diameter (avg. inches)





P<0.05

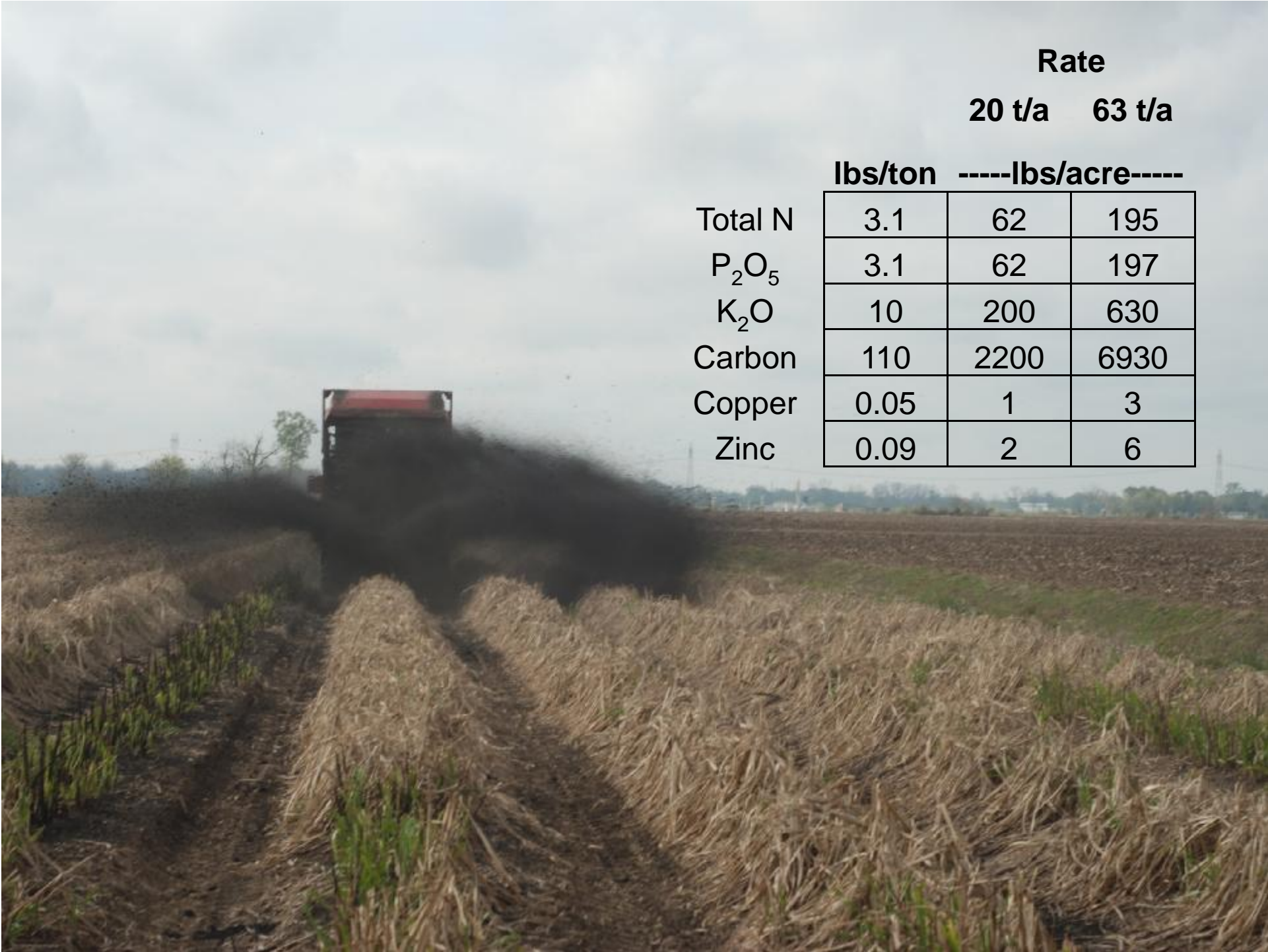
Conclusions

- Entire stool displayed off-type.
- No reversions back to normal phenotype.
- Off-type affected tonnage but not sugar concentration.

Filter press test



**Alma plantation
L 01-283 plant cane**



Rate

20 t/a 63 t/a

lbs/ton -----lbs/acre-----

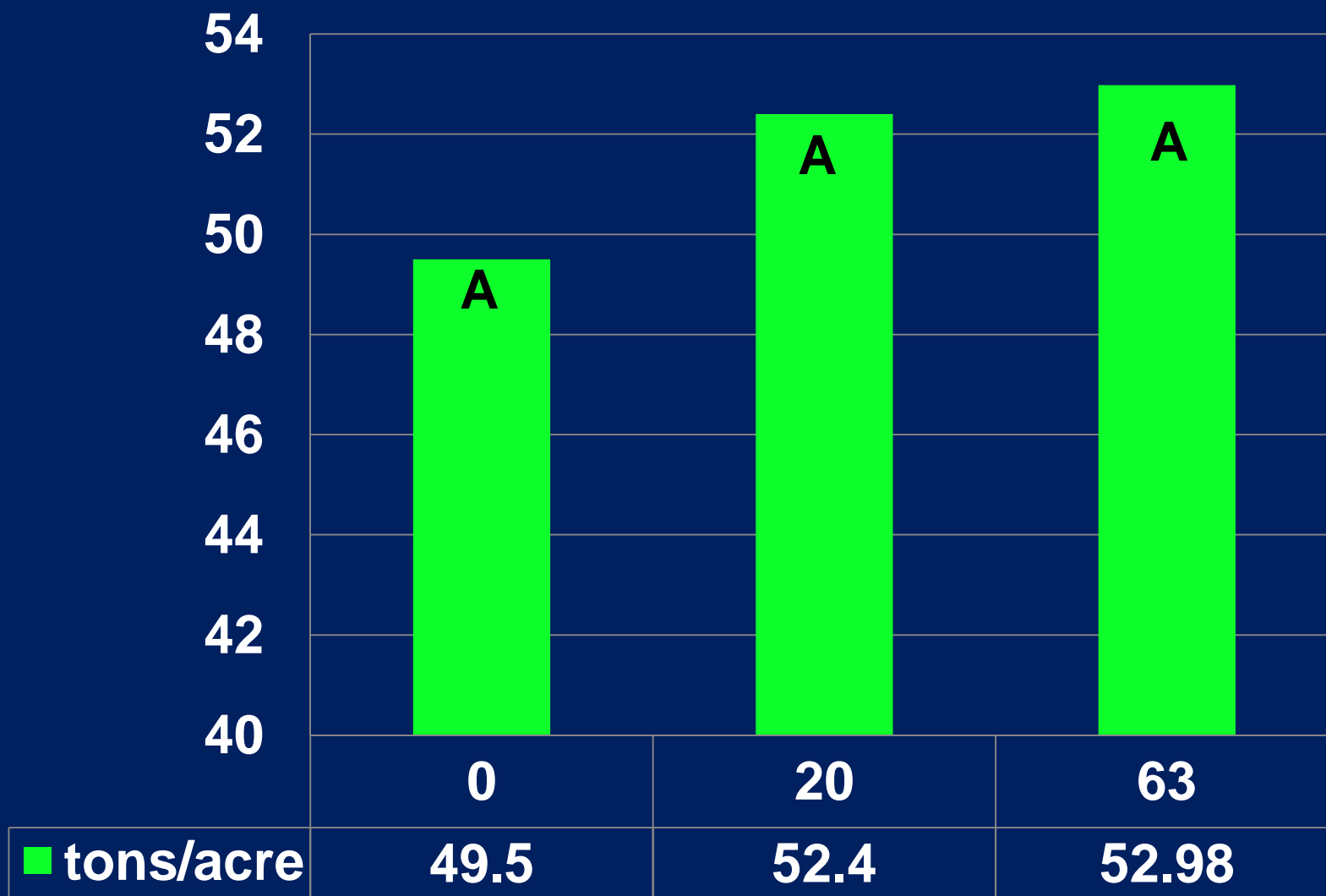
Total N	3.1	62	195
P ₂ O ₅	3.1	62	197
K ₂ O	10	200	630
Carbon	110	2200	6930
Copper	0.05	1	3
Zinc	0.09	2	6

Harvested on 11/17/2010



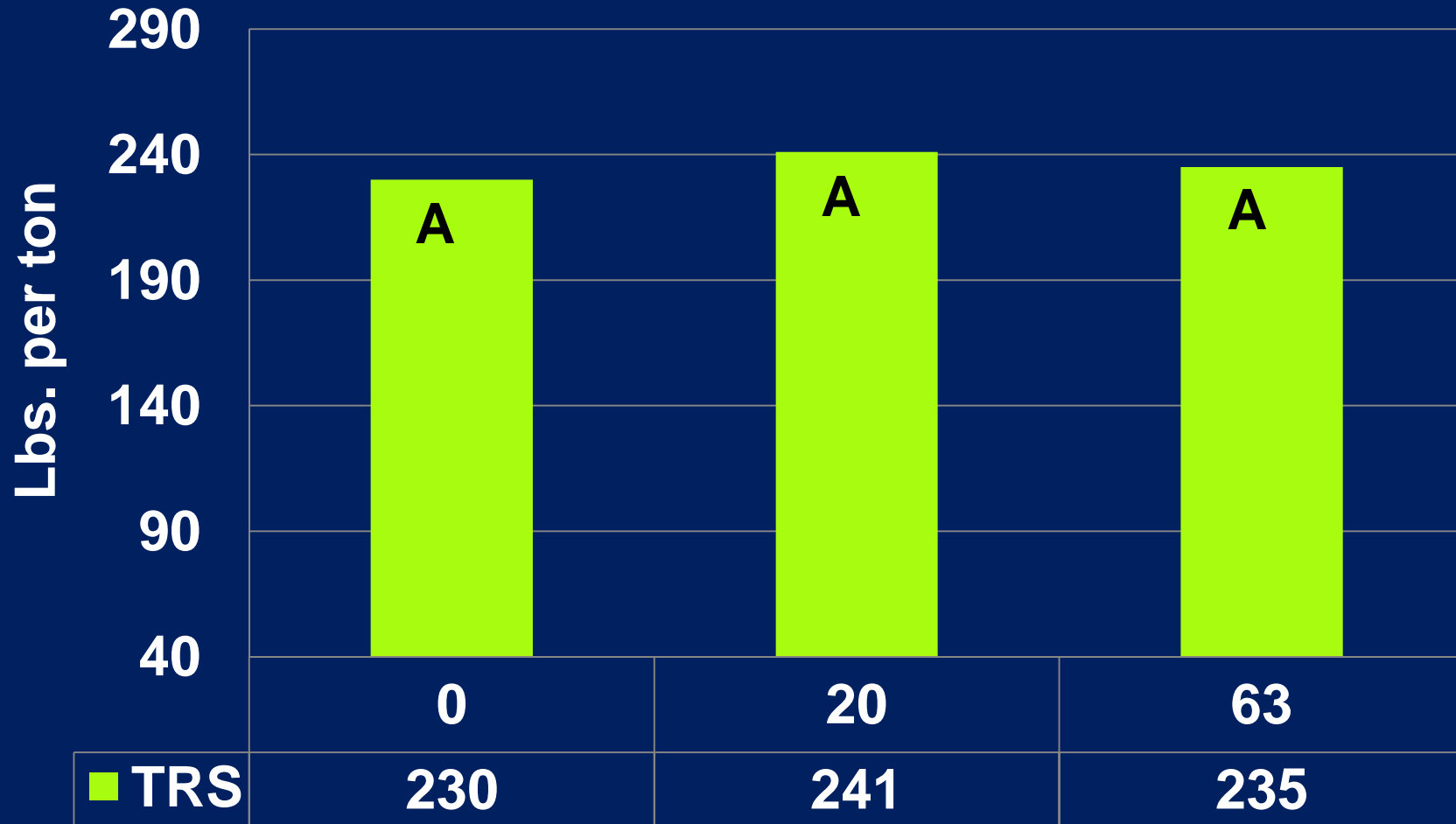
Filter press test (L 01-283 PC)

P<0.05



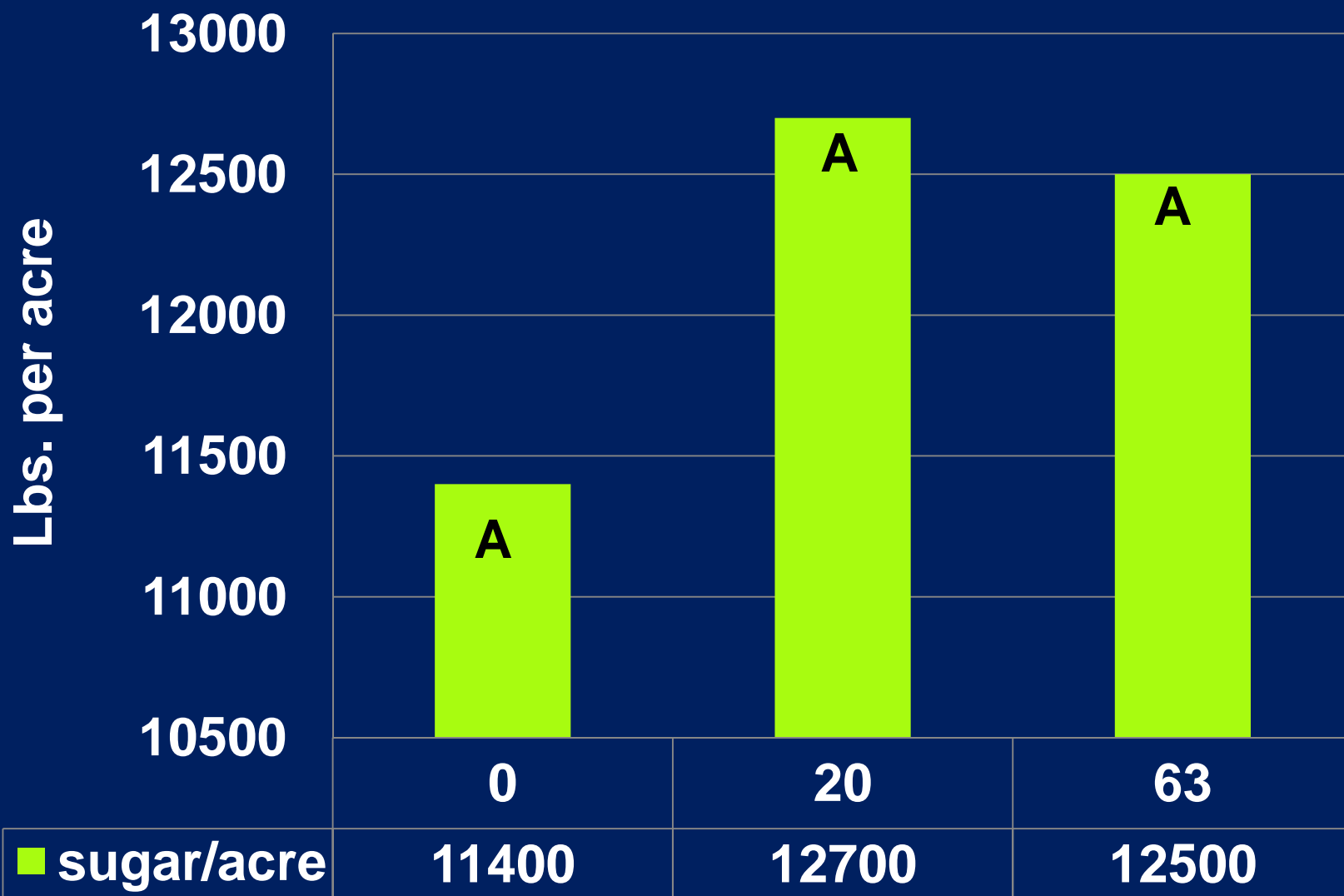
Filter press test (L 01-283 PC)

P<0.05



Filter press test (L 01-283 PC)

P<0.05



Conclusions

- **If available use filter press and/or fly ash to supplement soil nutrients – good source of N-P-K as well as other macro and micronutrients**
- **Increased cane yield by 3 tons/acre and sugar by 1000 lbs./acre.**

Sunn Hemp



**6 tons dry
matter/acre**



Cowpea – Alma plantation



Thank you

