



Cotton

response to Anglo American's POLY4[®]

Trial focus

Evaluate the yield response of cotton to the POLY4 program and MOP and MOP + gypsum + kieserite.

Overview

- Standard practice for cotton is to apply nitrogen (N), phosphorous (P), and potassium (K) according to crop need and soil testing. K fertiliser for cotton is MOP.
- Research highlights that cotton also benefits from application of sulfur (S).
- POLY4, as a source of sulfate sulfur as well as potassium (K), magnesium (Mg) and calcium (Ca), offers a sustained nutrient delivery ensuring a continuous supply of nutrients throughout the growing season, increased nutrient uptake and higher yields.

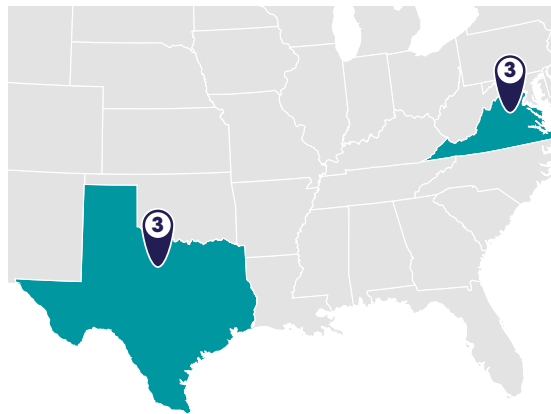
Treatments applied

- All treatments received standard N and P application rates.
- On average 250 lb acre⁻¹ of POLY4 was applied.
- Trials were balanced for K₂O with MOP. In two of the Texas trials, 30 lb K₂O acre⁻¹ was applied, with half from POLY4 (104 lb POLY4 acre⁻¹) and the remainder from MOP. In the Virginia trials and one Texas trial 90 lb K₂O acre⁻¹ was applied, with half from POLY4 (321 lb POLY4 acre⁻¹) and the remainder from MOP.

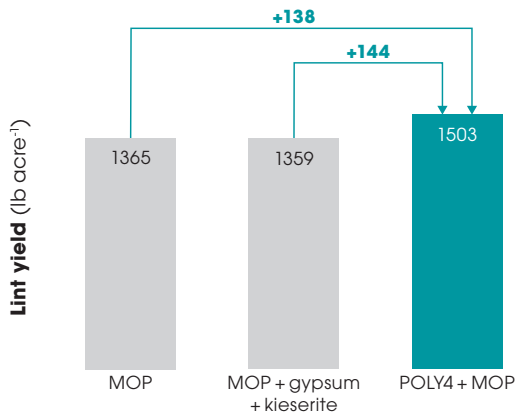
Average nutrients applied (lb acre⁻¹)

	K₂O	S	Mg	Ca
MOP	70	0	0	0
MOP + gypsum + kieserite	70	43	9	30
POLY4 + MOP	70	47	9	30

Trial locations



Results



Conclusion

- POLY4 program increased cotton yield by 138 lbs lint/ac compared to MOP and by 144 lbs lint/ac compared to MOP + gypsum + kieserite.
- Higher cotton yields achieved with POLY4 demonstrate the value of supplying potassium, sulfur, magnesium and calcium at a sustained rate that supports season-long crop nutrient demand.

Crop:

Cotton

Years:

2015–2020

Locations:

Six trials in Texas and Virginia.

Data source:

Field studies conducted by third-party, independent researchers.

144
lbs lint/ac

increase with
POLY4 over
MOP + gypsum
+ kieserite

Notes: Yields based on median yield of POLY4 + MOP, and median change in yield between standard and POLY4 programs. All calculated yield results are median.