# Growing COTTON IN BRAZIL





### **KEY FINDINGS**

6% lint yield increase for FMG975 cotton cultivar

8% lint yield improvement for TMG47

Improved crop revenue

## A CASE FOR POLY4

- Mato Grosso cultivates 1 to 1.1 million hectares of cotton.
- Most of the cotton growing area has sandy soil with less than 20% clay, low cation exchange capacity (CEC) and high rainfall. Low CEC soils are more susceptible to leaching losses of potassium and magnesium, while sandy soils with high rainfall are susceptible to sulphate leaching.
- POLY4 supplies each of these nutrients in one product. Nutrients are available to the crop throughout the growing season and are less likely to be lost from the soil in leachate.
- Calcium delivered by POLY4 allows for deeper soil exploration by roots resulting in better crop growth and yield.



#### **POLY4 BENEFITS**



Source of macro and micro nutrients



Sustained nutrient delivery



Improved fertilizer use efficiency



Enhanced soil health



Stores, handles and spreads effectively

Treatments	Nutrients applied (kg ha <sup>-1</sup> )				
	K₂O	S	CaO	MgO	CI
MOP	90	0	0	0	69
MOP + POLY4 (50:50)	90	61	55	19	44

\*Both treatments contained standard rates of N and P.

#### **INCREASED YIELD**



On average, lint yield was increased by 7% over the MOP treatment.

Average crop revenue was increased by US\$439/ha with the POLY4 treatment compared to MOP.



Notes: 1) Pre-trial soil levels: pH (CaCl.) 5.3, pH (water) 6.1, 2.1% SOM, 61 mg P kg<sup>-1</sup>, 76 mg K kg<sup>-1</sup>, 432 mg Ca kg<sup>-1</sup>, 115 mg Mg kg<sup>-1</sup>; 2) N and P applied at 224 kg N ha<sup>-1</sup> and 80 kg  $P_2O_5$  ha<sup>-1</sup> from MAP and urea; 50% of  $K_2O$  in MOP + POLY4 treatment from POLY4; 3) Crop price US\$3127/t as of November 2018.

POLY4



#### **TRIAL FOCUS**

To measure the yield response of two cotton cultivars – FMG975 and TMG47 – to POLY4 treatment plan against MOP.

#### PARTNER

Ceres Consultoria Agronômica

#### LOCATION

Primavera do Leste Mato Grosso Brazil

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