

# Growing CORN IN MEXICO



**POLY4**  
A SIRIUS MINERALS PRODUCT



## KEY FINDINGS

**6% yield improvement  
across three trials**

**Greater revenue**



## A CASE FOR POLY4

- Corn is the largest crop by area in Mexico.
- Jalisco is Mexico's second largest unirrigated grain corn producing region.
- A balanced fertilization programme is required to achieve high yields and keep good nutrient balance in the soil.
- Rainfed crops require good potassium supply to reduce drought stress.

## POLY4 BENEFITS



Source of macro and micro nutrients



Extended nutrient delivery



Compatible with NPK blends



Spreads easily with a uniform distribution pattern

Treatments	Nutrients applied (kg ha <sup>-1</sup> )			
	K <sub>2</sub> O	MgO	S	CaO
N + P (control)	0	0	0	0
MOP	60	0	0	0
MOP + S	60	0	33	0
MOP + POLY4 (66:33)	60	9	27	24
POLY4	60	25	82	73

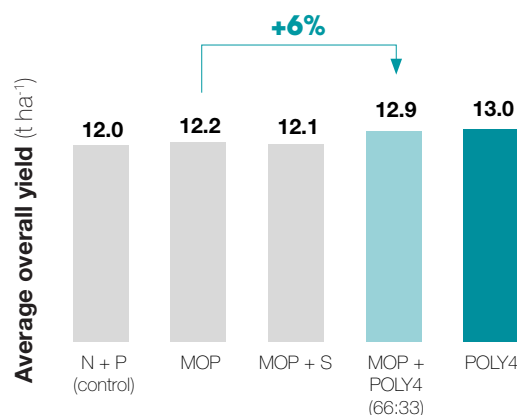
\*All treatments had 61 kg ha<sup>-1</sup> of N and 80 kg ha<sup>-1</sup> of P<sub>2</sub>O<sub>5</sub>. MOP to POLY4 ratio is on a K:K basis.



## CONSISTENT YIELD IMPROVEMENT



The POLY4 and MOP + POLY4 fertilized crops had the highest yields across the three trials despite quite different soil characteristics between the two locations where the trials took place.



## TRIAL FOCUS

To compare the yield response of corn to POLY4 with standard fertilizer plans (MOP and MOP + S) across three trials in two locations.

## PARTNER

**Chemello y Asociados S.C.**

## LOCATION

**San Isidro, Mazatepec and Sayula, Jalisco, Mexico**

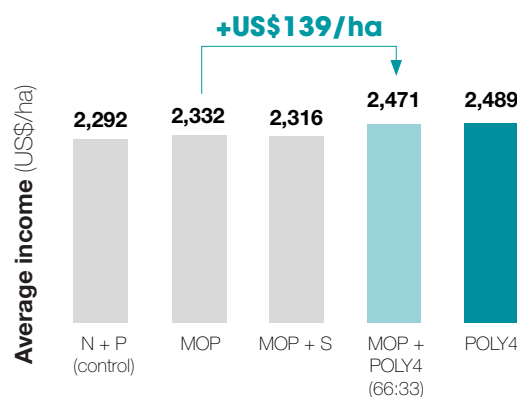
## DATE

**2018**

## IMPROVED INCOME



POLY4 treatments increased the income gained from the crop compared to when standard practice was used.



Notes: 1) 2018 agricultural year. SIAP Mexican Government. 2) Pre-trial soil level at San Isidro Mazatepec: pH: 6.3, 2.6 % OM, 18 mg P kg<sup>-1</sup>, 128 mg K kg<sup>-1</sup>, 642 mg Ca kg<sup>-1</sup>, 81 mg Mg kg<sup>-1</sup>, 11 mg S kg<sup>-1</sup>, 184 mg Na kg<sup>-1</sup>, 68 mg Fe kg<sup>-1</sup>, 2 mg Zn kg<sup>-1</sup>, 7 mg Mn kg<sup>-1</sup>, 0.2 mg Cu kg<sup>-1</sup>, 0.4 mg B kg<sup>-1</sup>, CEC: 5.1 cmol kg<sup>-1</sup>; 3) Pre-trial soil levels at Sayula: pH: 6.7, 66 mg P kg<sup>-1</sup>, 374 mg K kg<sup>-1</sup>, 1479 mg Ca kg<sup>-1</sup>, 399 mg Mg kg<sup>-1</sup>, 11 mg S kg<sup>-1</sup>, 17 mg Na kg<sup>-1</sup>, 44 mg Fe kg<sup>-1</sup>, 2 mg Zn kg<sup>-1</sup>, 11 mg Mn kg<sup>-1</sup>, 2 mg Cu kg<sup>-1</sup>, 0.3 mg B kg<sup>-1</sup>, CEC: 11.7 cmol+kg<sup>-1</sup>; 4) Treatments applied at planting. All treatments had 61 kg ha<sup>-1</sup> of N at planting and 159 kg applied at V4, and 80 kg ha of P<sub>2</sub>O<sub>5</sub> from urea and DAP. S in MOP + S treatment from ammonium sulphate. Cultivars used in the trial were B7372 and Berrendo at San Isidro, whereas DK2037 was used at Sayula. Four replicates per treatment were set for the trial; 5) Genstat means of all experiments; 6) Corn price: US\$191/t (FAOSTAT).

Source: Chemello y Asociados S.C., Mexico (2018), 115000-CHEM-115010-18 (corn).

Follow us on social media

