Growing CORN IN CHINA

POLY4

K_2O 14% | S 19% | MgO 6% | CaO 17%

KEY FINDINGS

7% yield increase over MOP

Balanced crop nutrition plan

14% enhanced soil K level

A CASE FOR POLY4

- Heilongjiang Province in China cultivates 6.6 million hectares of corn.
- This is an area of black soils with very high natural fertility. However, soil-available potassium (K) has decreased over time because of fertilizer plans often lacking K.
- POLY4 is well suited to provide not only K to the corn crop, but also sulphur (S), magnesium (Mg) and calcium (Ca), helping to meet crop demand and to build a nutrient legacy in the soil.

POLY4 BENEFITS

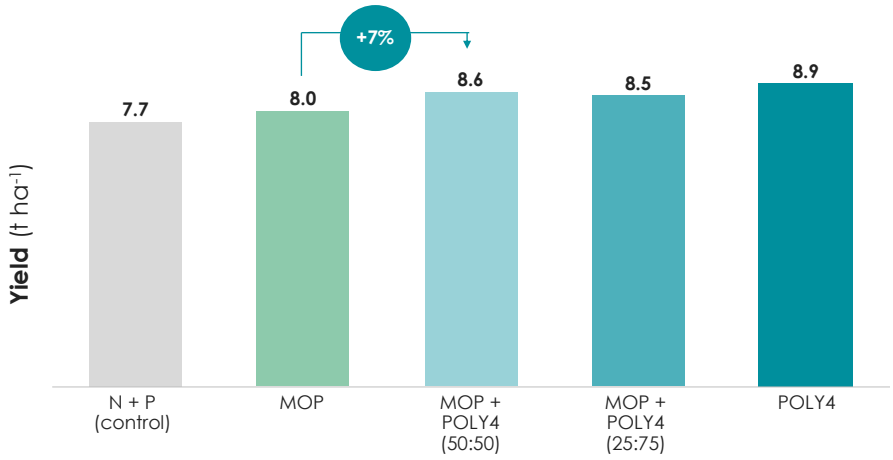
- Source of essential nutrients
- Sustained nutrient delivery rate, matching crop requirements
- Excellent spreading pattern
- Easy to store
- Low carbon footprint

Treatments	Nutrient application rate (kg ha^{-1})			
	K_2O	S	MgO	CaO
N + P (control)	0	0	0	0
MOP	70	0	0	0
MOP + POLY4 (50:50)	70	48	15	43
MOP + POLY4 (25:75)	70	71	23	64
POLY4	70	95	30	85

*All treatments received 150 kg N ha^{-1} and 70 Kg P_2O_5 ha^{-1}.

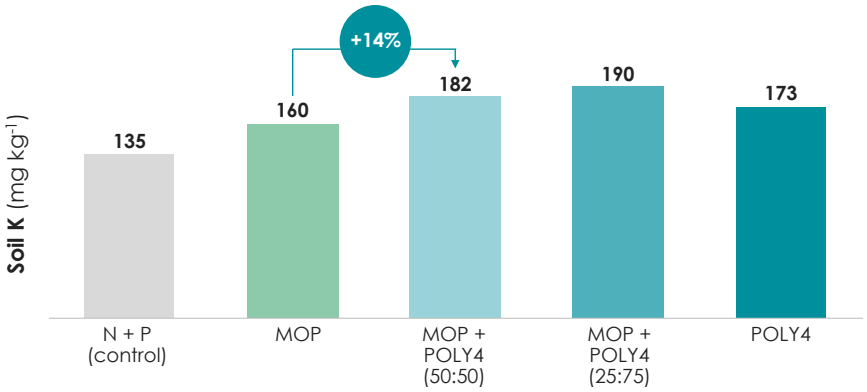
IMPROVED YIELD

The inclusion of POLY4 in the fertilizer plans improved corn yield. This highlights the importance of a balanced crop nutrition plan to achieving better yield results.



ENHANCED SOIL NUTRIENT STATUS

POLY4 helped to sustain K soil levels, supporting the efforts to ameliorate the potassium levels in the area.



Notes: N and P from urea and DAP at 150 kg N ha^{-1} and 70 kg P_2O_5 ha^{-1}; Urea split applied 40:60 base:top dress; K applied at 50, 70 and 90 kg K_2O ha^{-1}, treatment table and results are the average; MOP to POLY4 ratios are on a K:K basis; pre-trial soil analysis: pH 5.6, 3.9% SOM, 39 mg P kg^{-1}, 198 mg K kg^{-1}; Cultivar: Demeiya 1.

Source: Northeast Institute of Geography and Agroecology (2019), 107000-NEAG-107010-18 (corn).

TRIAL FOCUS

To evaluate the performance of POLY4 in corn compared to MOP.

PARTNER

Northeast Institute of Geography and Agroecology

LOCATION

Heilongjiang, China

DATE

2019

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