

# Growing TOMATOES IN USA



**POLY4**  
A SIRIUS MINERALS PRODUCT



## KEY FINDINGS

Up to 24% yield improvement

Up to 6% fruit size increase

Improved revenue



## POLY4 BENEFITS



Source of macro and micro nutrients



Sustained nutrient delivery



Low chloride



Suitable for organic farming

## A CASE FOR POLY4

- Virginia is the third largest producer of fresh tomatoes in the USA. Tomatoes are grown on 1200 to 2500 ha annually with a value of 50 to 100 million US dollars.
- In Virginia, tomatoes are produced on sandy coastal plain soils where K and S deficiencies can occur. In addition, Ca is important for fruit development.
- POLY4 is a low-chloride fertilizer which supplies K, S, Ca and Mg, as well as a range of beneficial micro nutrients.

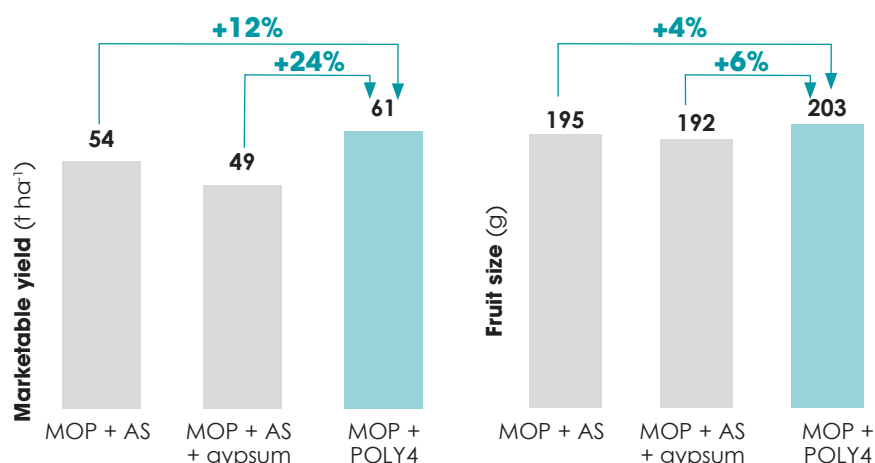
Treatments	Nutrients applied (kg ha <sup>-1</sup> )				
	K <sub>2</sub> O	S	CaO	MgO	Cl
MOP + AS	240	214	0	0	184
MOP + AS + gypsum	240	214	192	0	184
MOP + POLY4	240	214	192	68	97

\* All treatments received 120 kg N ha<sup>-1</sup> and 58 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>.

## GREATER MARKETABLE YIELD



MOP + POLY4 fertilized tomatoes had the greatest marketable yield. This yield was significantly higher than with the application of MOP + AS + gypsum. Fruits grown with MOP + POLY4 were also larger than with other treatments.



## TRIAL FOCUS

To measure the yield response of tomatoes on MOP + POLY4, MOP + AS and MOP + AS + gypsum fertilizer plans.

## PARTNER

**Virginia Tech**

## LOCATION

**Virginia, USA**

## DATE

**2017**

## IMPROVED PLANT GROWTH

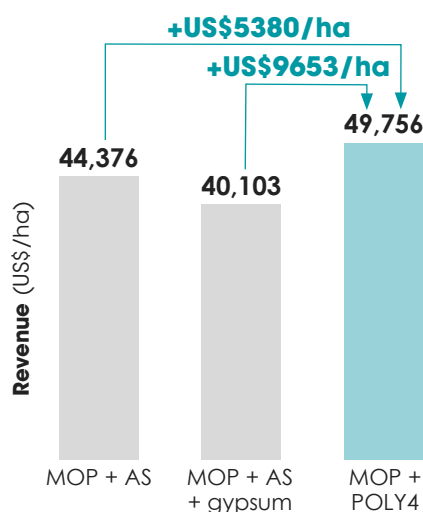


The stover biomass of MOP + POLY4 fertilized tomatoes was 35% higher than the MOP + AS + gypsum crop and 54% higher than the MOP + AS tomatoes. A larger plant captures more light and can have greater yield.

## INCREASED INCOME



POLY4 gave the greatest revenue.



Notes: 1) N and P supplied as urea and DAP (and ammonium sulphate (AS) in MOP + S and MOP + S + Ca treatments) at 120 kg N ha<sup>-1</sup> and 58 kg P<sub>2</sub>O<sub>5</sub> ha<sup>-1</sup>; S supplied as AS and elemental sulphur in MOP + AS treatment; S supplied as AS and gypsum in MOP + S + Ca treatment. For MOP + POLY4 treatment two-thirds of K<sub>2</sub>O was supplied by POLY4; 2) Data analysed by Genstat ANOVA analysis. Mean separation by Fishers LSD test at 5% level; 3) Based on crop value of US\$822/t.

Source: Virginia Tech (2017), 23000-VIR-23022-17 (tomatoes).

Follow us on social media

