Growing TOMATOES IN USA

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.
**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.

**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.

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**TREATMENT 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

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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\(^{-1}\) and 58 kg P\(_2\)O\(_5\) ha\(^{-1}\); 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\(_2\)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).