Growing CEREALS IN EUROPE

KEY FINDINGS
Adding MOP + POLY4 into the fertilizer programme consistently improved barley and wheat yields compared to standard practice (MOP + AS)

A CASE FOR POLY4

• The EU produced 143 million metric tonnes of wheat and 59 million metric tonnes of barley in 2017.

• Standard practice in Europe is to apply MOP as the K fertilizer and add ammonium sulphate-S (AS) where S fertilizer is required.

• Low-chloride and sustainable POLY4 supplies K, S, Mg and Ca in one product.

poly4.com
CONSISTENT YIELD IMPROVEMENT

Across 16 wheat and barley trials MOP + POLY4 had significantly higher yield than MOP + AS. Yields with MOP + POLY4 were consistently higher than MOP + AS, with nine of the trials outperforming MOP + AS by at least 1%, and six of these by at least 3%. In the remaining trials MOP + POLY4 had similar performance to MOP + AS. The average increase in barley yield with MOP + POLY4 was 3% compared to MOP + AS and 14% compared to MOP.

The average increase in wheat yield with MOP + POLY4 was 2% compared to MOP + AS and 3% compared to MOP.

Notes: Europe production statistics from ec.europa.eu/; Trials were conducted at 23 sites across Europe. Sixteen of the sites (eight barley and eight wheat) were responsive (P < 0.1) to K and/or S fertilizer (only those data are presented); Paired samples t-test of MOP + POLY4 versus MOP + S testing the null hypothesis that the mean yield of MOP + POLY4 minus MOP + S is equal to zero; significance tested at 5% level; for each trial, yield responses of fertilizers were calculated relative to the yield of MOP + POLY4, i.e. MOP + POLY4 = 100%; the average yield of barley fertilized with MOP + POLY4 was 6.85 t ha⁻¹; the average yield of wheat was 6.91 t ha⁻¹; Median (and min-max) soil tests: pH 6.1 (5.2-6.8); P (six sites only): 20 (7-38) mg kg⁻¹; K: 104 (33-215) mg kg⁻¹; Ca: 1115 (583-1570) mg kg⁻¹; Mg: 59 (25-94) mg kg⁻¹.