Growing TEA IN CHINA

POLY4

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

KEY FINDINGS

Three-year average 5% yield advantage over SOP

5% spring bud density increase

Tea quality maintained

A CASE FOR POLY4

- China is the largest tea producer in the world, growing 2.5 million tonnes in 2017, with Yunnan being the largest tea-producing province in China.
- The major tea-growing region of Yunnan is characterised by high rainfall and acidic soils with low fertility for important macro nutrients such as potassium, magnesium and calcium.
- Soil sampling conducted in 2010 found that 74% of tea plantation samples were potassium deficient. POLY4 is a low-chloride source of potassium as well as sulphur, magnesium, and calcium.

POLY4 BENEFITS

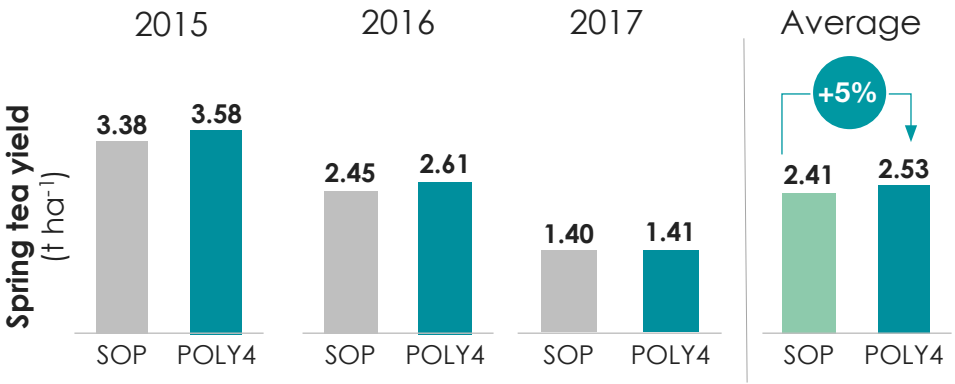
- A low Cl^-, balanced source of K and Mg with sulphate-S and Ca
- Sustained nutrient supply
- Improves soil nutrient legacy
- Produced with no chemical processing
- Suitable for organic farming

Treatments	Nutrient rates applied (kg ha^{-1})				
	K_2O	S	CaO	MgO	Cl^-
SOP	105	36	0	0	0
POLY4	105	143	128	45	23

*Each treatment received standard N and P.

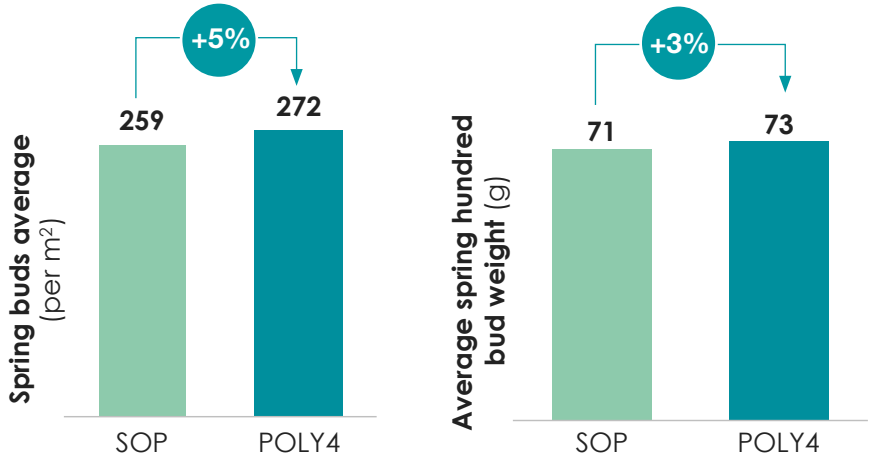
IMPROVED SPRING LEAVE YIELD

Spring leaves are typically of highest value compared to other seasonal harvest. Spring tea yield was variable year to year due to environmental conditions such as a very dry spring in 2017. Despite this variability, POLY4 consistently matched or exceeded SOP-fertilized yield.



INCREASED BUD PRODUCTION

Buds are the highest quality component of tea and are important for the sale price. On average, POLY4 increased bud density by 5% compared to SOP while maintaining bud weight.



Notes: FAOSTAT (2017). Treatment table and data are the average of the K_2O rates applied (56, 84, 112, and 168 kg K_2O ha-1). Initial soil analysis from year 1 (2014): pH 5.2, 2.9% SOM, 6 mg P kg^{-1}, 90 mg K kg^{-1}.

Source: Yunnan Agricultural University (2015 – 2017): 21000-YAU-21011-14, 21000-YAU-21014-15, 21000-YAU-21017-16 (tea).

TRIAL FOCUS

To compare yield and quality of POLY4-fertilized tea to SOP over a three-year trial.

PARTNER

Yunnan Agricultural University

LOCATION

Xishuangbanna, Yunnan Province, China

DATE

2015 – 2017

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