

Growing **TURF IN THE UK**



POLY4

A SIRIUS MINERALS PRODUCT

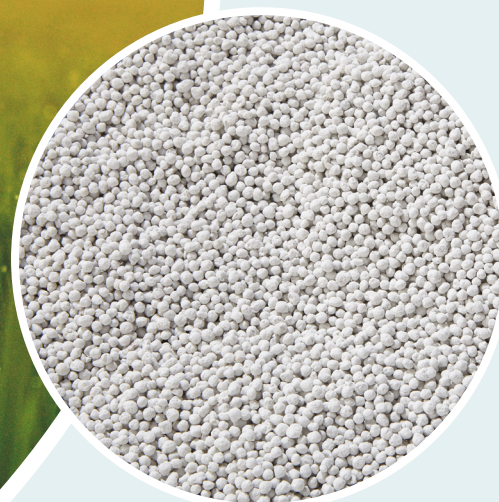
K₂O	S	MgO	CaO
14	19	6	17

KEY FINDINGS

**Improved turf quality with
POLY4 application**

**Lower Red Thread
disease incidence**

**91-98% lower input cost
with the use of POLY4**



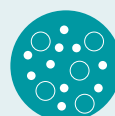
POLY4 BENEFITS



Source of macro and micro nutrients



Sustained nutrient delivery



Micro-granulated (<2 mm)
option to prevent interference
with play in close-mown turf



No requirement for chemical
processing



Low CO₂ emissions

A CASE FOR POLY4

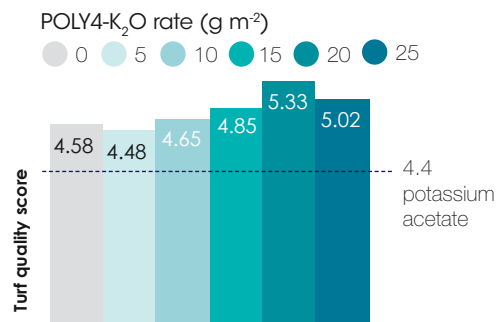
- High quality turf is required by sport facilities and parks.
- Sport turf (golf courses, football pitches, tennis courts) is often established in challenging environments with poor soil nutrient conditions.
- Careful fertilizer management is key in maintaining turf quality and colour while limiting weeds and pests.

Treatment	Average nutrients applied in trial (g m ⁻²)						
	N	P ₂ O ₅	K ₂ O	CaO	MgO	S	Cl
N (control)	7	0	0	0	0	0	0
Potassium acetate	7	0	15	0	0	0	0
POLY4	7	0	5	5.9	2.1	2.3	1.1
	7	0	10	11.9	4.3	4.5	2.1
	7	0	15	17.8	6.4	6.8	3.2
	7	0	20	23.8	8.5	9.1	4.3
	7	0	25	29.8	10.7	11.4	5.3

IMPROVED TURF QUALITY



The turf quality improved with POLY4 application by up to 22% versus potassium acetate.

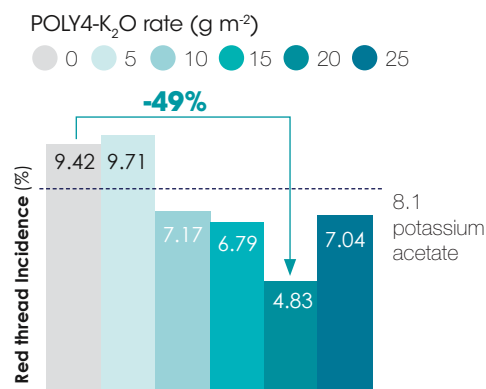


Turf quality is scored by visual assessment 1-10. Scores above 5 are acceptable.

SUPPORTING DISEASE DEFENCE FUNCTION



Lower Red Thread (a fungal disease which causes red-brown patches) incidence than the control and acetate control where POLY4 supplied 15 -20 g K₂O m⁻².



MICRO GRANULES FORMULATED FOR TURF USE

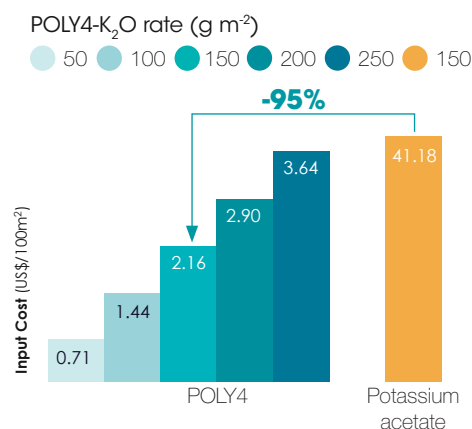


The presence of fertilizer can physically interfere with play on turf grass by, for example, obstructing a golf ball. POLY4 granules breakdown and disperse within a month of application.

LOWER INPUT COSTS



Fertilizer inputs for turf are generally expensive owing to specific, tailored needs of groundskeepers. Economic analysis of K fertilizer input showed that the use of POLY4 can lower input costs between 91 - 98%.



TRIAL FOCUS

To compare the effect of POLY4 on golf turf quality with potassium acetate fertilizer.

PARTNER



LOCATION

**Bingley,
United Kingdom**

DATE

2017

Follow us on social media



Notes: 1) Morris 2006, The national turfgrass research institute, Green Section Record, accessed on 7/8/18; 2) N was applied as urea at 7 g m⁻¹; 3) Price of potassium acetate US\$10.43/L and POLY4 US\$200/t; 4) Potassium acetate contains 38% potassium; 5) Initial soil analysis for site: pH 5.8, 0.12 mg N kg⁻¹, 33 mg P kg⁻¹, 75 mg K kg⁻¹, 1.3 mg S kg⁻¹.

Source: Sports Turf Research Institute (2017) 71000-STRI-71010-17.