

FIELD TRIAL FINDINGS

Protassium+ Delivers Higher Quality and Yield

A 2013 field trial near Othello, Washington compared common potash sources to determine the impact on potato yield and quality. Trial results clearly showed Protassium+™ produced bigger yields and higher quality potatoes.

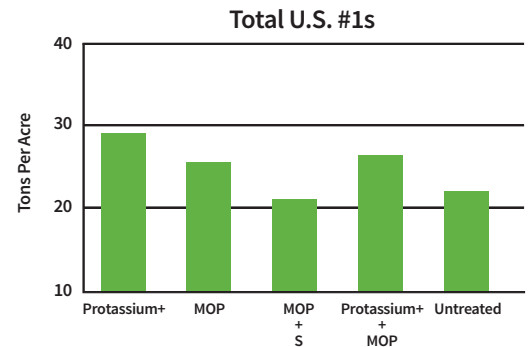
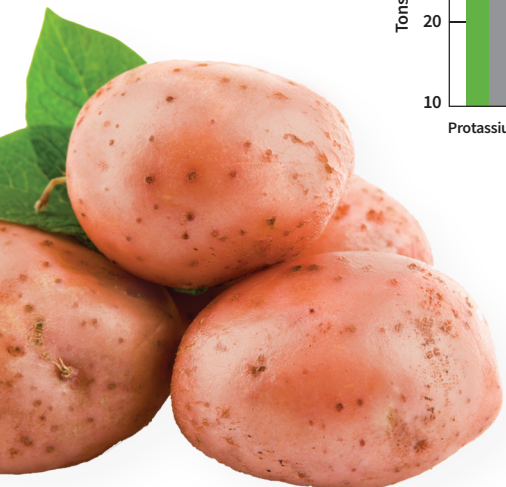
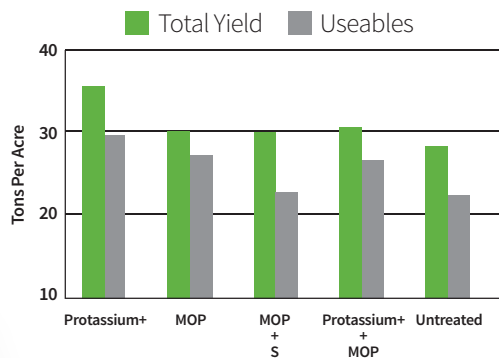
Protassium+ delivered a 5.1 ton increase per acre and more U.S. #1s than any other K source.

1.1 | Proof is in the Potash

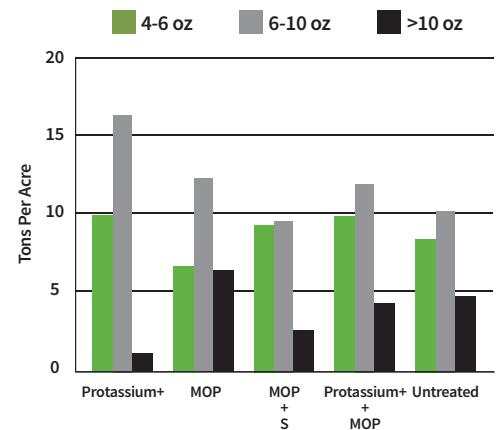
In a research trial, the average across four replication plots showed that plants treated with 100% Protassium+ significantly outperformed the other K sources. Protassium+ yielded:

- 5.1 tons more total potatoes per acre than MOP
- 3.2 tons more U.S. #1 grade potatoes than MOP
- 3.8 tons more U.S. #1 grade 4-6 oz. than MOP
- .2 tons more U.S. #1 grade 6-10 oz. than MOP

Potato Performance



Total U.S. #1s by Size Group



1.2 | Methodology

The trial was conducted in a commercial field using 10' x 30' plots and included four replications. Five treatment variations were tested. These included:

- 200 lb of K₂O as Protassium+ per acre
- 200 lb of K₂O as MOP (muriate of potash) per acre
- 200 lb of K₂O as MOP + sulfur (equal to the amount in Protassium+) per acre
- 200 lb of K₂O (50% as MOP, 50% as Protassium+) per acre
- 0 lb of K₂O (control)

Fig. 1a | Trial plot near Othello, Washington

September 30, 2013



July 26, 2013

1.3 | The Field Trial

Holland Agricultural Services conducted the field trial with the goal to test on potassium sources and eliminate as many variables as possible that impact yield and quality. This was accomplished in a commercial grower’s field using simulated growing conditions in an actual field, with:

- Whole 2 ¼-2 ½ oz seed potatoes – to help eliminate seed decay and reduce pathogen entry
- Hand selecting and planting – ensured consistent seed weight and spacing
- Broadcast applications prior to hilling – allowed fertilizer to be near the roots for easy uptake.

1.4 | Results & Conclusion

Across all four replications, the Protassium+ treated potato plants showed early vigor and significant increased yields at harvest over the other treatment options.

From the results of the trial, it can be easily concluded that the high chloride found in MOP contributed to lower yields and quality. Chloride and a high salt index, like that found in MOP, contribute to:

- Poor germination
- Nutritional imbalances
- Seedling injury
- Leaf burn
- Stunted root and shoot growth

And while storage analysis of the trial are not yet completed, excessive chloride has been shown to decrease specific gravity and increase storage loss due to shrinkage.¹

Sulfate of potash is virtually chloride free and has the lowest salt index per unit of K₂O among all major sources of potassium. Plus, Protassium+ contains 17% sulfur in the sulfate form, which is readily available for uptake and helps support a variety of plant functions. The results of the field trial clearly show that choosing Protassium+ as a potassium source contributes to greater revenue for growers.

To learn more about how Protassium+ benefits your potatoes and your bottom line, please visit www.ProtassiumPlus.com or call 1-800-743-7258.

Calculate your revenue benefit of Protassium+ for an established stand.



Your Sample Revenue Calculation	
Enter # of potato acres	_____
X	
Increased tons per acre from using Protassium+ vs. MOP	5.1
Total ton increase using from Protassium+ vs. MOP	<input type="text"/>
X	
Enter current market price per ton \$	_____
Your increased gross revenue opportunity from Protassium+ vs. MOP	\$ <input type="text"/>

Disclaimer: Field trial results were achieved through accurate and controlled methodologies. Soil type, weather, and growing strategies may impact future results.
¹ Colorado State University Potato Study, S. Essah, 2009.