



Granular Micronutrients



Feed your Crop – add Ruffin-Tuff to your fertilizer blend.

Ruffin-Tuff™ products are patented, lignosulfonated (LS) soil-applied granular micronutrients. The Ruffin-Tuff line is designed specifically to increase nutrient use efficiency and address specific micronutrient deficiencies in the soil.

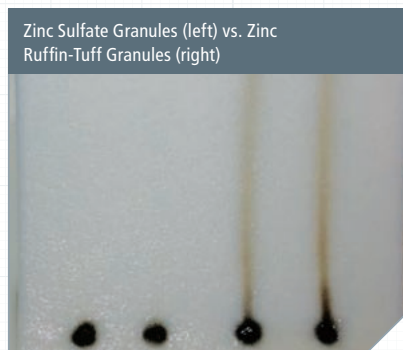
- 100% water soluble, which means the nutrients are 100% plant available
- The patented LS technology protects the micronutrients, allowing them to stay available and more mobile in the soil for a longer period of time
- Contains the lowest analysis of all granular micronutrients in the industry
- Bulk density is the same as granular NPK fertilizers
- End result is more feeding sites

Solubility + Availability = Delivers Genetic Potential

Ruffin-Tuff Granular Micronutrients are leading the industry, with the success being due to optimum solubility and availability. Ruffin-Tuff is 100% water soluble, meaning the nutrients are 100% plant available. When Ruffin-Tuff is added to soils, the following occurs:

- Increases feeding sites for the plant than that of competitors as there are 2x more granules per pound of product
- Improves seedling vigour, rooting and the overall root architecture
- Enhances overall nutrient use efficacy by the plant, allowing the crop to reach its genetic potential
- Immediately plant available, stays available and mobile, to properly address nutrient deficiencies.

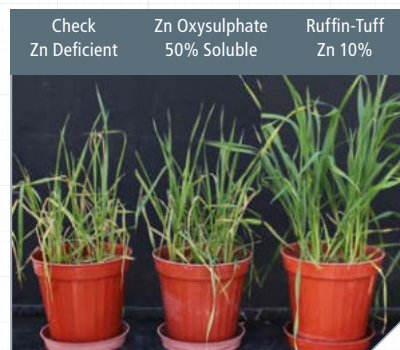
SOLUBILITY COMPARISON



BULK DENSITY COMPARISON



AVAILABILITY COMPARISON

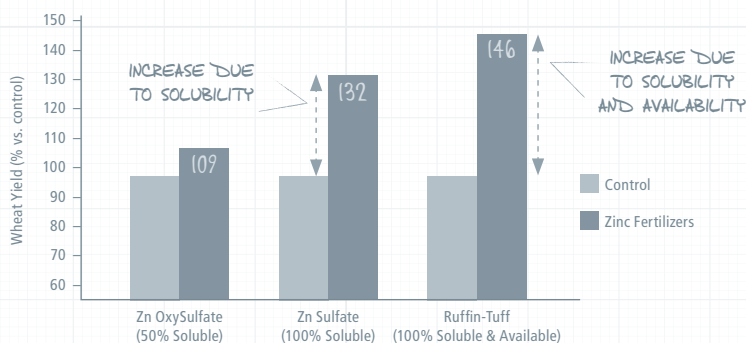


Only Ruffin-Tuff corrects Zinc deficiency.

Proven Agronomic Performance

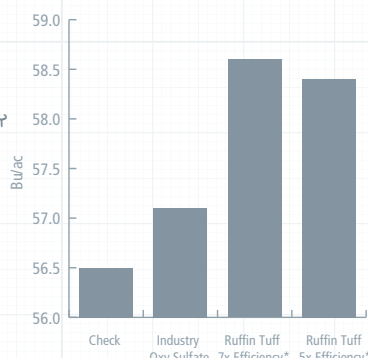
- Growth Chamber data generated in 2014 shows that Ruffin-Tuff increased overall wheat yield by an average 46%, due to 100% solubility and availability. By improving the early season root development, Ruffin-Tuff had a direct positive effect on the crop's yield.
- Small plot replicated trials conducted in Western Canada in 2012 confirmed that Ruffin-Tuff delivers increased nutrient use efficiency and yield to the crop.
- 3D Scanning conducted in 2012 demonstrates that Ruffin-Tuff increased the root architecture by almost 85% vs. Check and even 20% more than Oxysulphate based micronutrients.
- To review the complete Ruffin-Tuff data package, please contact your ATP Technical expert today.

YIELD (GROWTH CHAMBER)



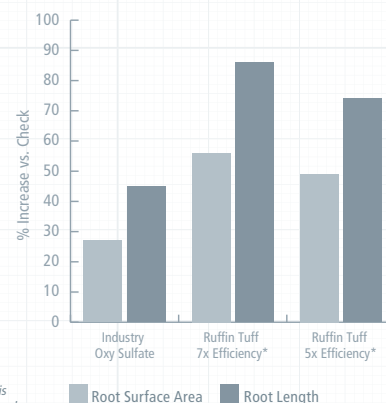
Sabancı University, Dr. Cakmak, 2014 Growth Chamber data.
All products soil applied at 1 lb/ac zinc equivalent. Ruffin-Tuff applied at 5x efficiency factor.

YIELD



*Due to the patented complexing formulation of Ruffin-Tuff it is proven that the chelation creates a 7x and 5x efficiency compared to other granular micronutrients. 2012 Western Canada Small Plot Replicated Trials

ROOTS



BY IMPROVING THE EARLY SEASON ROOT DEVELOPMENT, RUFFIN-TUFF INCREASED OVERALL WHEAT YIELD BY AN AVERAGE 46%.

Product Recommendations

- Using the agronomically approved efficiency factor (5:1), Ruffin-Tuff offers a low rate of product per acre, while still delivering more feeding site for the plant roots to take up the nutrients.
- Please conduct a soil sample to determine if your soil will be responsive to a granular micronutrient application.
- To view the Ruffin-Tuff SDS and Product Label and to read more information, please visit www.atpnutrition.ca

Product	Analysis	# of Nutrients/Acre	Rate (lb/Ac)	Timing
Zinc	10Zn-7S	1	2.0	Soil
		2	4.0	
Copper	5Cu-6S	1	4.0	Soil
		2	8.0	
Manganese	8Mn-6S	1	2.5	Soil
		2	5.0	
Iron	10Fe-8S	1	2.0	Soil
		2	4.0	
Crop Mix II	6Zn-3Mn-1.5Cu-1.5B-8S	1	3.5	Soil
		2	7.0	
Boron*	10B	1	10.0	Soil
		2	20.0	

*Boron is Ulexite which is a combination of calcium borate and sodium borate

At ATP, we believe a proactive, science-based and balanced nutrient plan is the single most effective way to deliver the genetic potential of the crop. We challenge the status quo to drive productivity. **At ATP Nutrition, we believe in Powering Growth with Science®.**



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