

SUMMARY

Multi-Year and multi-location sugarbeet trials were established by QLF Agronomy and conducted in the state of Michigan. The majority of sugarbeet production in Michigan is located in the thumb and Saginaw Valley areas. Michigan is the No.4 producer of sugarbeets in the country.

One of these locations trialed and repeated in 2017 and 2018 were conducted through Michigan State University at the Saginaw Valley Research and Extension Center, 4 miles north of Frankenmuth, Michigan. These trials were managed to evaluate if Liquid Carbon-Based Fertilizer [L-CBF] products used as a T-Band application with Quadris™ alleviated the effects of *Rhizoctonia solani* on the sugarbeet's taproot [fibrous root system]. QLF's starter blend LCBF 7-21-3 MKP [Treatment 4] repeated consecutive years with positive results and zero losses from dead plants. In addition to T-Band application treatments these replicated [6 reps] trials also compared 2x2 placement of L-CBF BOOST™ with APP 10-34-0 and UAN 28%.

These trials managed by Michigan State University Extension concluded that treatments containing L-CBF had lower disease pressure and had greater plant stand counts in May/June [Table 1 and 2] and continued that trend throughout the growing season up to harvest without causing any negative effects on RWST (Recoverable White Sugar Per Ton), RWSA (Recoverable White Sugar Per Acre), Yield, % Sucrose, % CJP (Clear Juice Purity), and ROI. This verified that L-CBF treatments assisted with improving root health at the early sugarbeet stages with applications of Quadris™ while maintaining acceptable measurable harvest variables.

Treatment 2) 10-34-0

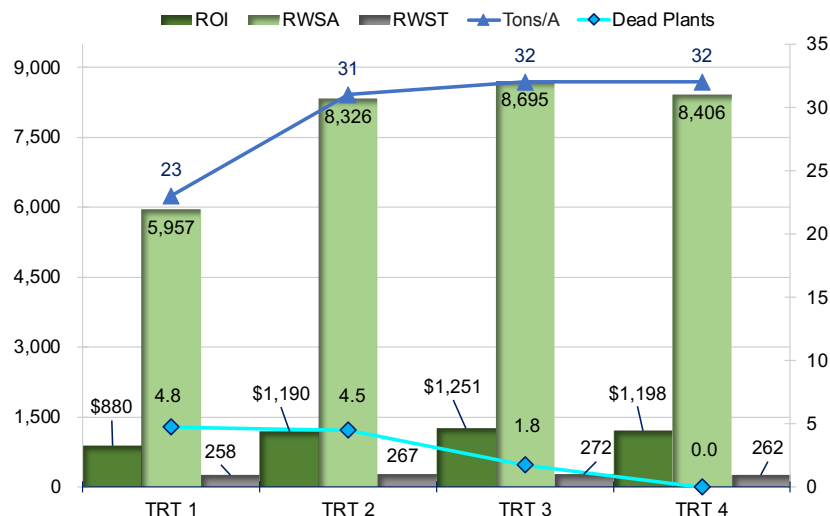


Treatment 4) L-CBF 7-21-3 MKP



Table 1: Michigan State University Extension, 2017

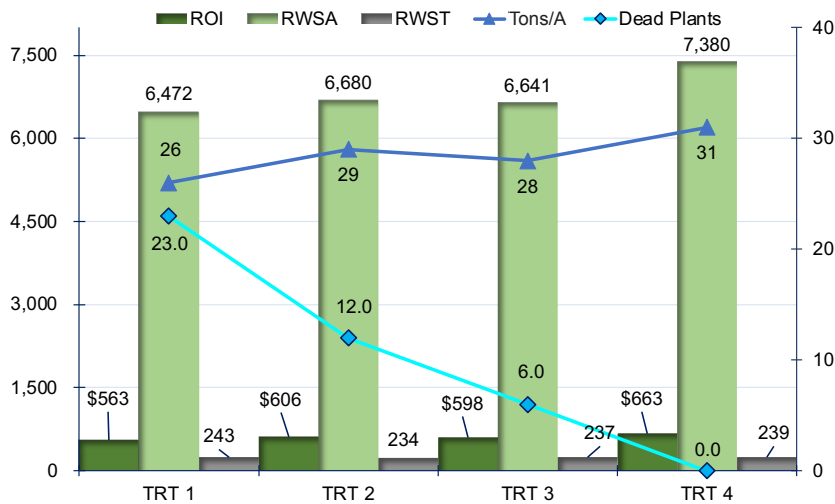
Michigan State University
 Sugarbeet Plant Health Trial, 2017
 Dead *Beta vulgaris* [*Rhizoctonia solani*]



Michigan State University Sugarbeet Plant Health Trial, 2017 Dead <i>Beta vulgaris</i> , 175 ft2	
TRT 1. Check 2x2: UAN 28% at 12 GPA SD: UAN 28% at 35 GPA	TRT 2. T-Band: 10-34-0 at 2 GPA. 2x2: 10-34-0+UAN 28% at 5+12 GPA. SD: UAN 28% at 35 GPA
TRT 3. T-Band: 10-34-0 + L-CBF BOOST at 1+1 GPA 2x2: 10-34-0+UAN 28% at 5 + 12 GPA +L-CBF BOOST at 2 GPA SD: 28% at 35 GPA	TRT 4. T-Band: L-CBF 7-21-3 MKP at 2 GPA. 2x2: L-CBF 7-21-3 MKP + UAN 28% at 5 GPA + UAN 28% at 12 GPA. SD: UAN 28% at 35 GPA

Table 2: Michigan State University Extension, 2018

Michigan State University
 Sugarbeet Plant Health Trial, 2018
 Dead *Beta vulgaris* [*Rhizoctonia solani*]



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TRT 3. T-Band: 10-34-0+L-CBF BOOST at 1+1 GPA 2x2: 10-34-0+ UAN 28% at 5 + 12 GPA +L-CBF BOOST at 2 GPA SD: UAN 28% at 35 GPA	TRT 4. T-Band: L-CBF 7-21-3 MKP at 2 GPA 2x2: L-CBF 7-21-3 MKP + UAN 28% at 5+12 GPA SD: UAN 28% at 35 GPA