

SUGAR BEETS

MX-3 foliar & in-furrow 2018 trial

MONTRA

Stronger Beets. Higher Sugar. Proven Returns – Without Extra Field Passes.

For over a decade, Montra has partnered in field trials with Michigan Sugar to evaluate the performance of our MX-3 bio-stimulant in commercial sugar beet production. Across varying soil types and growing seasons, the results continue to demonstrate consistent, measurable value.

Side-by-side trials have repeatedly shown ROIs of 2.5-4 : 1, as well as:

- Enhanced overall crop health
- Stronger, more fibrous root systems
- Increased tonnage
- Higher sugar content
- Improved purity

Why It Works: The Power of Humates in the Soil

At the core of our MX-3 product line is high-quality humate technology designed to improve soil biology and nutrient efficiency.

Humates work by:

- Stimulating beneficial microbial activity in the rhizosphere
- Improving soil structure and aggregation
- Increasing cation exchange capacity (CEC)
- Chelating key nutrients to improve plant availability
- Reducing nutrient tie-up and leaching losses

For sugar beets, this means nutrients like nitrogen, phosphorus, potassium, and micronutrients are more efficiently utilized throughout the growing season. A biologically active soil supports steady nutrient uptake, reduces plant stress, and encourages stronger root development – directly influencing tonnage, sugar content, and purity at harvest.

Trial Averages Over a Decade

	RWSA	RWST	T/A	SUGAR	PURITY
Control Avg	7679 lbs	247 lbs	31.09	16.74%	95.9%
Treated Avg	8402 lbs	262 lbs	32.07	17.91%	96.6%
Results	+723 lbs	+15 lbs	+0.98 Tons	+1.17%	+0.7%

Consistently showing an ROI of 2.5:1 – 4:1



Seamless Integration – No Extra Passes

MX-3 is compatible for tank-mixing with virtually every product commonly used in sugar beet production. That means no additional trips across the field, no added fuel or labor costs – just enhanced performance integrated directly into your existing spray program. (See below for an example of compatible tank-mixed applications).

Date	What Was Applied	Time Applied	Rate/Acre	Category
4/26/18	BTS 12RR2N	4:14pm	0.67 unit	sugar beet variety
4/26/18	28-0-0 1.5s	2:28pm	61.00 gal	fertilizer
4/26/18	MX-3 in furrow	2:28pm	3.3 qts.	micronutrient fertilizer
5/30/18	MX-3 Foliar Blend	12:17pm	8.00 fl. Oz.	micronutrient fertilizer
5/30/18	Quadris	12:17pm	14.00 fl. Oz.	fungicide
6/25/18	Blendex	10:21am	0.50 fl. Oz.	stabilizing agent
6/25/18	MX-3 Foliar Blend	10:21am	1 pint	micronutrient fertilizer
6/25/18	Manzate Pro-Stick Fungicide	10:21am	2.00 lbs	fungicide
6/25/18	MasterLock	10:21am	6.40 fl. Oz.	adjuvant/sticker
7/9/18	Blendex	8:30am	2.10 fl. Oz.	stabilizing agent
7/9/18	Inspire XT	8:30am	7.00 fl. Oz.	fungicide
7/9/18	MX-3 Foliar Blend	8:30am	16.00 fl. Oz.	micronutrient fertilizer
7/9/18	Manzate Pro-Stick Fungicide	8:30am	2.00 lbs	fungicide
7/9/18	MasterLock	8:30am	6.40 fl. Oz.	adjuvant/sticker
7/23/18	Badge SC	5:10pm	32.00 fl. Oz.	fungicide
7/23/18	Blendex	5:10pm	2.10 fl. Oz.	stabilizing agent
7/23/18	MX-3 Foliar Blend	5:10pm	16.00 fl. Oz.	micronutrient fertilizer
7/23/18	Manzate Pro-Stick Fungicide	5:10pm	2.00 lbs	fungicide
7/23/18	MasterLock	5:10pm	6.40 fl. Oz.	adjuvant/sticker
8/2/18	Blendex	2:45pm	2.10 fl. Oz.	stabilizing agent
8/2/18	MX-3 Foliar Blend	2:45pm	16.00 fl. Oz.	micronutrient fertilizer
8/2/18	Manzate Pro-Stick Fungicide	2:45pm	2.00 lbs	fungicide
8/2/18	MasterLock	2:45pm	6.40 fl. Oz.	adjuvant/sticker
8/2/18	Super Tin 4L	2:45pm	8.00 fl. Oz.	fungicide
8/9/18	Blendex	6:00pm	2.10 fl. Oz.	stabilizing agent
8/9/18	MX-3 Foliar Blend	6:00pm	16.00 fl. Oz.	micronutrient fertilizer
8/9/18	Manzate Pro-Stick Fungicide	6:00pm	2.00 lbs	fungicide
8/9/18	MasterLock	6:00pm	6.40 fl. Oz.	adjuvant/sticker
8/9/18	Priaxor D Xemium -Component A	6:00pm	4.00 fl. Oz.	fungicide
8/24/18	Badge SC	5:21pm	2.00 pints	fungicide
8/24/18	Blendex	5:21pm	0.53 fl. Oz.	stabilizing agent
8/24/18	MX-3 Foliar Blend	5:21pm	2.00 pints	micronutrient fertilizer
8/24/18	MasterLock	5:21pm	6.40 fl. Oz.	adjuvant/sticker
8/24/18	Topguard Fungicide	5:21pm	13.30 fl. Oz.	fungicide
9/11/18	Blendex	2:56pm	2.10 fl. Oz.	stabilizing agent
9/11/18	MX-3 Foliar Blend	2:56pm	16.00 fl. Oz.	micronutrient fertilizer
9/11/18	Manzate Pro-Stick Fungicide	2:56pm	2.00 lbs	fungicide
9/11/18	MasterLock	2:56pm	6.40 fl. Oz.	adjuvant/sticker
9/11/18	Super Tin 4L	2:56pm	8.00 fl. Oz.	fungicide
9/26/18	Blendex	4:49pm	2.10 fl. Oz.	stabilizing agent
9/26/18	MX-3 Foliar Blend	4:49pm	16.00 fl. Oz.	micronutrient fertilizer
9/26/18	Manzate Pro-Stick Fungicide	4:49pm	2.00 lbs	fungicide
9/26/18	MasterLock	4:49pm	6.40 fl. Oz.	adjuvant/sticker
9/26/18	Proline 480 SC Fungicide	4:49pm	5.70 fl. Oz.	fungicide

Better soil function. Better nutrient efficiency. Better crop performance. All without increasing field operations. After more than ten years of trials and consistent results, the message is clear: stronger soils grow stronger beets – and stronger beets deliver stronger returns.

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