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MX-3 BIO-STIMULANT POTATO TRIAL SUMMARY

Manitoba Field Trial – 2025

1 TRIAL OVERVIEW

Montra Ag evaluated MX-3 bio-stimulant programs in a replicated Manitoba potato trial to assess their effect on yield and tuber quality in Russet Burbank potatoes. The trial was conducted at Southport, Manitoba using a randomized complete block design with four replications. Potatoes were planted on May 21 and harvested on October 1.

2 PROGRAMS COMPARED

- Standard Control
- High Phos Control
- Standard + 1 L MX-3 Humical + 2 L MX-3 Fulvical
- Standard + 3 L MX-3 Fulvical
- Standard + 2 L MX-3 Humical + 2 L MX-3 Fulvical

3 YIELD RESULTS

Across the standard fertility programs, all MX-3 treatments delivered higher total yield than the untreated standard control. Standard + MX-3 programs ranged from 505.1 to 509.1 cwt/ac versus 486.3 cwt/ac for the Standard Control, and performed similarly to the High Phos Control at 508.0 cwt/ac.

TRIAL SNAPSHOT

Location: Southport, Manitoba

Crop: Russet Burbank potatoes

Design: RCBD, 4 reps

Planting date: May 21

Harvest date: October 1

TOP YIELD PROGRAM

Standard + 3 L MX-3 Fulvical

509.1 cwt/ac

+22.8 cwt/ac vs. control

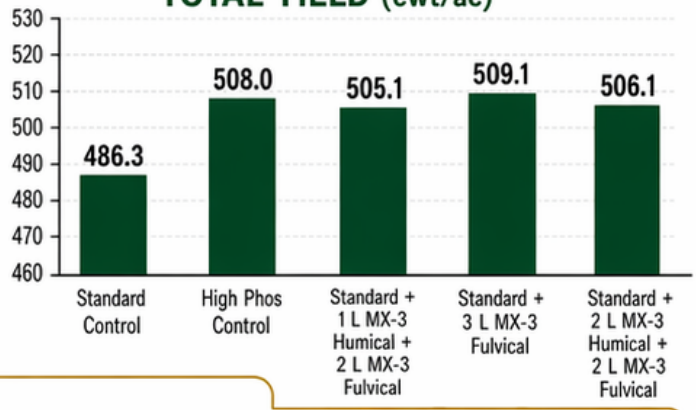
MATCHED HIGH PHOS PERFORMANCE

High Phos Control: 508.0 cwt/ac

Standard + MX-3: 505.1–509.1 cwt/ac

Table 1. Total Yield Response

Program	Total Yield (cwt/ac)	Gain vs. Standard Control (cwt/ac)	Gain vs. Standard Control (%)
Standard Control	486.3	—	—
High Phos Control	508.0	+21.7	+4.5%
Standard + 1 L MX-3 Humical + 2 L MX-3 Fulvical	505.1	+18.8	+3.9%
Standard + 3 L MX-3 Fulvical	509.1	+22.8	+4.7%
Standard + 2 L MX-3 Humical + 2 L MX-3 Fulvical	506.1	+19.8	+4.1%



In this replicated Manitoba potato trial, standard fertility + MX-3 delivered yield performance comparable to the High Phos Control while also out-yielding the Standard Control.

MX-3 programs increased total potato yield versus the standard control and matched High Phos performance in this Manitoba field trial.

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4 QUALITY & PROCESSING PERFORMANCE

A key outcome of this trial was that the yield increase from MX-3 came without compromising tuber quality. Specific gravity remained strong across programs, hollowheart levels stayed low, and fry quality remained very good.

Table 2. Quality Summary vs. Standard Control

Program	Specific Gravity	Hollowheart (%)	Mean Fry Colour (0–4)	Fries in 0 & 1 Class (%)
Standard Control	1.0807	2.22	0.21	95.0
Standard + 1 L MX-3 Humical + 2 L MX-3 Fulvical	1.0796	0.71	0.26	93.0
Standard + 3 L MX-3 Fulvical	1.0801	1.42	0.25	95.0
Standard + 2 L MX-3 Humical + 2 L MX-3 Fulvical	1.0818	0.49	0.12	98.0

QUALITY HIGHLIGHTS

- Yield gains came with strong processing quality
- Specific gravity remained strong across programs
- Hollowheart levels remained low
- Fry colour stayed light and acceptable

5 WHAT THIS MEANS FOR GROWERS

- Every MX-3 program out-yielded the standard control
- Standard + MX-3 matched High Phos yield performance
- Best total yield came from Standard + 3 L MX-3 Fulvical
- Quality was maintained while yield increased

6 PROGRAM PERFORMANCE SNAPSHOT

Program	Performance Summary
Standard Control	Baseline program for comparison
High Phos Control	Higher fertility benchmark at 508.0 cwt/ac
Standard + 1 L MX-3 Humical + 2 L MX-3 Fulvical	Higher yield than control and comparable to High Phos benchmark
Standard + 3 L MX-3 Fulvical	Highest total yield in the trial comparison
Standard + 2 L MX-3 Humical + 2 L MX-3 Fulvical	Strong yield gain with excellent quality profile

In a replicated Manitoba potato trial, Montra Ag's MX-3 bio-stimulant programs increased total potato yield by up to 22.8 cwt/ac compared with the standard control and delivered yields comparable to the High Phos Control, while maintaining strong tuber and processing quality.

MX-3 helps support stronger potato performance, dependable quality, and improved production potential.