

**Soil Technologies Corp.
Research and Development Department**



Research Report

Title: Microp and Cattle Manure Treatments on Tomato Production

Location:

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Crop: Tomato

Date: 1990

Abstract:

The purpose of this study was to evaluate the agronomic effects of Microp¹ and compared to cattle manure on tomato crop yields and cost. Microp and cattle manure treatments were applied to plots of tomato crops and were compared to a control group. The yields of each group were then evaluated to determine if there was an increase or decrease. The cost and net profits per experimental group were also calculated.

Methods:

Treatments were applied to plots and compared to a control group. Using a completely randomized design with 12-foot by 75-foot plots, each treatment was replicated four times. After the applications of treatments, each group was evaluated for changes in yield, and cost and net profits were calculated.

¹Microp is an OMRI listed biofertilizer and soil amendment manufactured by Soil Technologies Corp. in Fairfield, IA, USA

To calculate the cost and net profit for each treatment, the following values were used:

Item	Cost
Tomato	\$0.20 per pound
Composted cattle manure	\$10.00/ton + \$7.50/ton application cost
Microp	\$9.00/acre + \$3.00/acre application cost

Table 1. Cost per Treatment

Results:

Results for the yield and cost of each plot are listed in the below table. Overall, the treated plots saw an average increase in pounds of tomatoes using Microp compared to the control and the cattle manure plots.

Treatment	Pounds	% Increase	Yield Value	Value Yield Increase	Cost	Net Profits
Control	18,586	--	\$3,717	--	--	--
2 Ton of Manure/acre	23,232	25.5%	\$4,646	\$929	\$35	\$894
4 Tons of Manure/acre	27,201	46.39%	\$5,440	\$1,723	\$70	\$1,653
Microp (2 applications)	28,798	55%	\$5,759	\$2,042	\$24	\$2,018
Microp (4 applications)	22,844	23%	\$4,568	\$851	\$48	\$803

Table 2. Yield and Cost of Each Plot

Conclusions:

Results of this study demonstrate that the plots using two applications of Microp was the most beneficial with a 55% increase in pounds of tomatoes and a net profit of \$2,018 in comparison to the other plots.