



On Farm Research and Demonstration

Partnership of: Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

2008 STARTER FERTILIZER TRIAL

Cooperator:	Bean & Beet Farm	Tillage:	Fall Plowed - Spring S Tine
Location:	Saginaw County	Harvest Date:	10/2/2008
Planting Date:	5/5/2008	Sample Date:	10/2/2008
Previous Crop:	Corn	Herbicides:	Microrates
Soil Type:	Clay	Replicated:	6x
Spacing:	30" Row, Seed Thinned to 6"	Variety:	B-5833R
Fertilizer:	See Treatments: Side-dressed N. on 6/12/08 Soil Test P - 35 ppm, pH - 7.9	Fungicide:	3 Cercospora Applications Quadris at 4-8 Leaf Stage

TREATMENT	ECONOMIC NET RETURN	RWSA	TONS / ACRE	RWST	% SUGAR	% CJP
St: 15 Gal. Mix 28% & 10-34 (31# N, 30# P ₂ O ₅) N: 60# N Side-dressed	\$821	5571	21.07	264	17.5	96.3
St: No Starter N: 87# N PPI	\$803	5290	20.07	264	17.4	96.3
AVERAGE		5430	20.57	264	17.4	96.3
LSD (5%)		NS 382	NS 1.56	NS 3	NS 0.2	NS 0.3
C.V. (%)		5	5.11	1	0.6	0.2

TRIAL RELIABILITY: Good

EMERGENCE: Excellent	RHIZOCTONIA: Very Low
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Comments: Trial was conducted to look at the combination effect of a 2x2 starter fertilizer (31-30-0) and 60 lbs. of side-dress nitrogen compared to a no starter fertilizer program with all the nitrogen (87 lbs/acre) pre plant incorporated. The treatment with 2x2 starter fertilizer visually had better growth than no starter treatment. A trend for higher yield occurred with starter/side-dress nitrogen application. Revenue per acre is based on a \$40 per ton projected payment and an "average RWST" equal to the trial average of 264. Cost used for P₂O₅ was \$0.40 per pound and \$10 was used for sidedress cost.

Cooperating Agriculturist: Tim Boring, Michigan State University
Paul Horny & Dennis Fleischmann, Saginaw Valley Bean & Beet Farm



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2008 STARTER FERTILIZER TRIAL

Cooperator: Bean & Beet Farm Location: Saginaw County Planting Date: 5/5/2008 Previous Crop: Corn Soil Type: Clay Spacing: 30" Row, Seed Thinned to 6" Fertilizer: See Treatments: Side-dressed N. on 6/12/08 Soil Test P - 35 ppm, pH - 7.9	Tillage: Fall Plowed - Spring S Tine Harvest Date: 10/2/2008 Sample Date: 10/2/2008 Herbicides: Microrates Replicated: 6x Variety: B-5833R Fungicide: 3 Cercospora Applications Quadris at 4-8 Leaf Stage
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TREATMENT	ECONOMIC NET RETURN	RWSA	TONS / ACRE	RWST	% SUGAR	% CJP
St: 7.5 Gal. of 10-34-0 (9# N, 30# P ₂ O ₅) N: 57# N PPI & 22.5# N Side-dressed	\$981	6621	24.69	268	17.7	96.4
St: 15 Gal. Mix 28% & 10-34 (31# N, 30# P ₂ O ₅) N: 57# N PPI	\$922	6170	23.61	261	17.5	95.7
St: No Starter N: 57# N PPI & 30# N Side-dressed	\$891	5959	22.53	264	17.6	96.0
St: 10 Gal. of 28% (30# N) N: 57# N PPI	\$862	5693	21.79	261	17.4	95.9
LSD (5%)		486	1.95	NS 8	NS 0.3	NS 0.7
C.V. (%)		7	6.85	2	1.6	0.6

TRIAL RELIABILITY: Good

EMERGENCE: Excellent	RHIZOCTONIA: Very Low
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Comments: Trial was conducted to look at the effect of starter 2x2 fertilizer and nitrogen placement/timing on early season growth and yield of sugarbeets. Soil test indicated that phosphorous levels are in the optimum range. Starter fertilizers containing 30 lbs of phosphorous in combination with nitrogen showed a visual early season growth response and yielded well. Side-dress nitrogen application seemed to have a positive influence on yield. Pre-plant application of nitrogen (4/17/08) was applied 2 1/2 weeks prior to planting (5/5/08) and was worked into the soil. Dry conditions occurred after the application which may have caused some nitrogen loss. Total nitrogen rate for each treatment was approximately 87 lbs/acre. Revenue per acre is based on a \$40 per ton projected payment and an "average RWST" equal to the trial average of 264. Cost used for P₂O₅ was \$0.40 per pound and \$10 was used for sidedress cost.

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