



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

VARIETY TRIAL

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|---|--------------------------|---|
| Cooperator: | Cedar Pond Farms | Tillage: | Fall Chisel – 1x Field Cultivator |
| Location: | Harbor Beach | Harvest Date: | 10/25/06 |
| Planting Date: | 4/17/06 | Sampled: | 10/20/06 |
| Previous Crop: | Soybeans | Herbicides: | 3x Micorate |
| Soil Type: | Sandy Loam | Replicated: | 3x |
| Row Spacing: | 30 Inch | # Rows Harvested: | 4 |
| Fertilizer: | 15 gal. 14-21-0 + Micro Starter 40 lbs. N / Applied by N Test Fall applied manure | Fungicide: | Quadris – 2-8 Leaf – Rhizoctonia Eminent – Supertin - Headline |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|-----------------|-------------|---------------------|------------|-------------|-------------|---------------------------|------------|------------|------------|---------------------|
| | | | | | | 10 DAY | 20 DAY | 30 DAY | HARVEST | |
| C-271 | 9920 | 34.23 | 290 | 18.9 | 96.7 | 134 | 268 | 276 | 237 | 57 |
| B-5451 | 9879 | 33.96 | 291 | 19.1 | 96.1 | 144 | 250 | 262 | 238 | 68 |
| B-4381 R | 9869 | 34.64 | 285 | 18.5 | 96.7 | 145 | 245 | 259 | 249 | 10 |
| C-963 | 9847 | 33.72 | 292 | 19.1 | 96.4 | 124 | 266 | 270 | 248 | 54 |
| 2763 RZ | 9829 | 34.69 | 283 | 18.5 | 96.6 | 60 | 273 | 274 | 266 | 88 |
| B-5411 R | 9777 | 33.83 | 289 | 19.0 | 96.2 | 179 | 262 | 264 | 253 | 64 |
| B-5833 R | 9662 | 35.06 | 276 | 18.2 | 96.2 | 183 | 243 | 264 | 251 | 24 |
| 2771 RZ | 9524 | 33.07 | 287 | 18.9 | 96.4 | 86 | 296 | 291 | 281 | 49 |
| C-355 | 9412 | 33.57 | 280 | 18.5 | 96.0 | 129 | 250 | 259 | 234 | 14 |
| 7172 RZ | 9319 | 34.27 | 272 | 18.1 | 95.7 | 91 | 246 | 258 | 241 | 2 |
| R-442 | 9294 | 32.91 | 283 | 18.7 | 95.9 | 145 | 232 | 248 | 224 | 56 |
| 73 RZ | 9057 | 33.07 | 274 | 18.2 | 95.9 | 81 | 156 | 163 | 176 | 60 |
| AVERAGE | 9616 | 33.92 | 283 | 18.7 | 96.2 | 125 | 249 | 257 | 242 | 46 |
| LSD (5%) | 575 | 1.87 | 9 | .4 | .8 | 50 | 32 | 29 | 30 | 72 |
| C.V. (%) | 4 | 3.26 | 2 | 1.4 | .5 | 24 | 8 | 7 | 7 | 93 |

Comments: High yield environment. Trial planted under good soil conditions. Stand establishment was rapid and timely rainfall occurred all season. This was an exceptional looking field with minimal yield constraints. Excellent leafspot control and low levels of Rhizoctonia. Populations were very high with some varieties above optimum levels. Average harvest population was 57,000 plants per acre. VARIETY 73 RZ had a planter plate seed size mismatch that cause a lower population.

Trial Reliability: EXCELLENT

Cooperating Agriculturist(s): Bob Corrigan – Michigan Sugar Company



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

VARIETY TRIAL

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|------------------------------------|--------------------------|--|
| Cooperator: | Knoerr Farms | Tillage: | Fall Chisel – 1x Field Cultivator |
| Location: | Auburn / Bay County | Harvest Date: | 10/30/06 |
| Planting Date: | 4/17/06 | Sample Date: | 10/18/06 |
| Previous Crop: | Corn | Herbicides: | Microrate 3x |
| Soil Type: | Loam | Replicated: | 3x |
| Row Spacing: | 30-Inch / 4.3 Inch Seed Spacing | # Rows Harvested: | 6 |
| Fertilizer: | 150 lbs. 13-24-16 25 gal. N 28% | Fungicide: | Quadris – 2-8 Leaf Stage 7/7/06 – Eminent 8/2/06 – SuperTin 9/4/06 - Headline |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|-----------------|-------------|---------------------|------------|-------------|-------------|---------------------------|------------|------------|------------|---------------------|
| | | | | | | 10 DAY | 20 DAY | 30 DAY | HARVEST | |
| R-442 | 8022 | 26.38 | 304 | 19.9 | 96.2 | 123 | 201 | 202 | 192 | 1 |
| C-271 | 7675 | 25.02 | 307 | 20.0 | 96.6 | 123 | 204 | 202 | 197 | 15 |
| B-5833 R | 7655 | 25.71 | 298 | 19.4 | 96.6 | 143 | 210 | 211 | 205 | 5 |
| B-4381 R | 7534 | 25.15 | 300 | 19.5 | 96.5 | 127 | 202 | 205 | 207 | 5 |
| B-5411 R | 7366 | 24.22 | 304 | 20.0 | 96.2 | 128 | 205 | 204 | 206 | 2 |
| B-5451 | 7340 | 23.56 | 311 | 20.3 | 96.4 | 106 | 189 | 195 | 191 | 17 |
| C-963 | 7336 | 23.55 | 312 | 20.4 | 96.2 | 156 | 230 | 231 | 228 | 43 |
| 2763 RZ | 7266 | 24.40 | 298 | 19.4 | 96.5 | 81 | 215 | 216 | 214 | 46 |
| 7172 RZ | 7261 | 24.35 | 299 | 19.6 | 96.0 | 77 | 205 | 206 | 210 | 0 |
| C-355 | 7219 | 24.48 | 295 | 19.4 | 96.0 | 120 | 195 | 202 | 192 | 9 |
| 73 RZ | 7177 | 24.53 | 292 | 19.2 | 96.3 | 51 | 183 | 187 | 189 | 4 |
| 2771 RZ | 6549 | 21.48 | 305 | 19.9 | 96.5 | 88 | 216 | 220 | 217 | 20 |
| AVERAGE | 7367 | 24.40 | 302 | 19.8 | 96.3 | 110 | 205 | 207 | 204 | 14 |
| LSD (5%) | 648 | 2 | 9 | .4 | NS | 22 | 22 | 20 | NS | 23 |
| C.V. (%) | 5 | 5.1 | 2 | 1.3 | .3 | 12 | 6 | 6 | 7 | 3 |

Comments: Trial planted in high residue corn stalks. Field was planted under good soil conditions with excellent emergence. Heavy rainfall occurred after emergence which slowed the growth of beets. Very low amount of Rhizoctonia found in field. Leafspot control was good. Trial looked good all year. There was minimal seedling disease. Harvest population was 35,000 plants per acre.

Trial Reliability: EXCELLENT

Cooperating Agriculturist(s): Rick List – Michigan Sugar Company



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

VARIETY TRIAL

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|--|--------------------------|--|
| Cooperator: | Brian Fox | Tillage: | Moldboard Plow 1x Field Cult. |
| Location: | Ontario, Canada | Harvest Date: | 11/14/06 |
| Planting Date: | 4-28-06 | Sample Date: | 11/14/06 |
| Previous Crop: | Soybeans | Herbicides: | 4x Microrate |
| Soil Type: | Clay Loam | Replicated: | 3x |
| Row Spacing: | 30 Inch - 4 3/16 Inch Seed Spacing | # Rows Harvested: | 6 |
| Fertilizer: | 75 lbs. MAP / 10 gal. 28% Banded 250 lbs. Potash / Side Dress 60 lbs. N | Fungicide: | Headline – Senator+ EDBC - Headline |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|-----------------|-------------|---------------------|------------|-------------|-------------|---------------------------|------------|------------|------------|---------------------|
| | | | | | | 12 DAY | 21 DAY | 30 DAY | HARVEST | |
| B-5833 R | 9617 | 37.50 | 256 | 17.7 | 94.1 | 202 | 211 | 211 | 186 | 16 |
| C-355 | 9437 | 35.30 | 267 | 18.7 | 93.4 | 238 | 224 | 221 | 193 | 2 |
| C-271 | 9403 | 35.85 | 262 | 18.2 | 93.7 | 232 | 230 | 215 | 177 | 7 |
| 73 RZ | 9146 | 35.13 | 260 | 18.0 | 93.8 | 230 | 230 | 198 | 174 | 25 |
| 2771 RZ | 9060 | 33.10 | 274 | 18.8 | 94.3 | 226 | 222 | 190 | 159 | 71 |
| C-963 | 9033 | 33.60 | 269 | 18.8 | 93.4 | 229 | 232 | 206 | 177 | 36 |
| R-442 | 8941 | 33.30 | 268 | 18.7 | 93.5 | 201 | 203 | 175 | 138 | 30 |
| B-4381 R | 8890 | 34.43 | 258 | 17.8 | 94.1 | 121 | 146 | 128 | 117 | 13 |
| B-5411 R | 8810 | 33.73 | 261 | 18.3 | 93.5 | 205 | 196 | 154 | 133 | 19 |
| 7172 RZ | 8379 | 34.83 | 241 | 17.3 | 92.2 | 239 | 236 | 220 | 211 | 11 |
| B-5451 | 8173 | 32.40 | 252 | 17.8 | 93.1 | 189 | 196 | 178 | 142 | 55 |
| 2763 RZ | 8157 | 31.20 | 262 | 18.2 | 93.8 | 237 | 234 | 219 | 147 | 174 |
| AVERAGE | 8921 | 34.20 | 261 | 18.2 | 93.6 | 212 | 213 | 193 | 163 | 38 |
| LSD (5%) | 934 | 2.86 | 12 | .5 | .8 | 41 | 48 | 54 | 56 | 139 |
| C.V. (%) | 6 | 4.9 | 3 | 1.8 | .5 | 11 | 13 | 17 | 20 | 215 |

Comments: High Yield Environment. Emergence was rapid under warm soil conditions. Leaf spot control was good. Some Rhizoctonia Crown Rot was present; however, one replication did have a significant level in some varieties. There was some seedling loss from the 21 to 30 day stand count and further significant stand loss up to harvest for some varieties. Trial was harvested under wet conditions. Average harvest stand was 29,000 plants per acre.

Trial Reliability: VERY GOOD

Cooperating Agriculturist(s): Wayne Martin - Michigan Sugar Company



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

VARIETY TRIAL

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|--|--------------------------|---|
| Cooperator: | Bushey Farms | Tillage: | Fall Chisel – 2x Field Cultivator |
| Location: | Elkton | Harvest Date: | 11/6/06 |
| Planting Date: | 4/26/06 | Sample Date: | 10/12/06 |
| Previous Crop: | Corn | Herbicides: | Microrates 3x |
| Soil Type: | Loam | Replicated: | 4x |
| Row Spacing: | 22 Inch – 4.6 Inch Seed Spacing | # Rows Harvested: | 8 |
| Fertilizer: | 20 gal. 28% Fall applied Dairy manure | Fungicide: | GEM – 1 st Eminent - 2 nd |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|-----------------|-------------|---------------------|------------|-------------|-------------|---------------------------|------------|------------|------------|---------------------|
| | | | | | | 16 DAY | 21 DAY | 34 DAY | HARVEST | |
| C-963 | 8002 | 26.55 | 302 | 19.9 | 96.0 | 70 | 121 | 164 | 169 | 14 |
| 2763 RZ | 7939 | 27.40 | 290 | 18.9 | 96.6 | 79 | 139 | 172 | 183 | 8 |
| C-271 | 7862 | 26.53 | 297 | 19.5 | 96.2 | 65 | 116 | 151 | 153 | 16 |
| B-5833 R | 7674 | 26.75 | 287 | 18.9 | 96.2 | 66 | 117 | 151 | 161 | 1 |
| R-442 | 7592 | 26.10 | 291 | 19.3 | 95.8 | 91 | 125 | 139 | 134 | 8 |
| 73 RZ | 7501 | 25.55 | 294 | 19.4 | 96.0 | 66 | 119 | 150 | 159 | 19 |
| B-5451 | 7482 | 24.90 | 301 | 19.8 | 96.1 | 75 | 116 | 142 | 149 | 6 |
| C-355 | 7404 | 25.53 | 290 | 19.2 | 95.8 | 47 | 86 | 150 | 154 | 0 |
| B-4381 R | 7355 | 24.80 | 297 | 19.4 | 96.6 | 69 | 96 | 142 | 164 | 2 |
| 7172 RZ | 7196 | 25.20 | 286 | 19.0 | 95.6 | 60 | 90 | 165 | 178 | 0 |
| B-5411 R | 7158 | 24.65 | 291 | 19.3 | 95.8 | 62 | 111 | 137 | 156 | 2 |
| 2771 RZ | 7125 | 24.27 | 293 | 19.3 | 96.2 | 58 | 132 | 194 | 204 | 11 |
| AVERAGE | 7524 | 25.68 | 293 | 19.3 | 96.1 | 67 | 114 | 155 | 164 | 7 |
| LSD (5%) | 397 | 1.1 | 8 | .4 | .6 | NS | 43 | 28 | 28 | NS |
| C.V. (%) | 4 | 3.0 | 2 | 1.3 | .4 | 60 | 26 | 13 | 12 | 12 |

Comments: Trial was slow to emerge. Field was planted under good soil conditions. Dairy manure was applied in the fall before beet planting. Rhizoctonia and seedling diseases were minimal. Leafspot control was fair to good. Weed control was a problem especially with small canopy beet varieties. Average harvest populations was 39,000 plants per acre.

Trial Reliability: VERY GOOD

Cooperating Agriculturist(s): Roger Elston – Michigan Sugar Company



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

Variety Trial

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|--|--------------------------|--|
| Cooperator: | Rick Gerstenberger | Tillage: | Fall Chisel / Field Cult. 2x |
| Location: | Sandusky | Harvest Date: | 11/4/06 |
| Planting Date: | 4/20/06 | Sample Date: | 10/26/06 |
| Previous Crop: | Soybeans | Herbicides: | Micro Rate 3x |
| Soil Type: | Loam | Replicated: | 3x |
| Row Spacing: | 28 Inch / 4 Inch Seed Spacing | # Rows Harvested: | 6 |
| Fertilizer: | 175 lbs. 15-29-9 + Micros 2x2 Alpine 6-24-6 / 2 gal. IF 90 lbs. N/ 28% | Fungicide: | Quadris – 2-8 Leaf Eminent - Headline |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|----------------|-------------|---------------------|------------|-------------|-------------|---------------------------|------------|------------|------------|---------------------|
| | | | | | | 15 DAY | 25 DAY | 32 DAY | HARVEST | |
| C-963 | 6747 | 25.27 | 267 | 18.5 | 93.8 | 128 | 148 | 142 | 127 | 60 |
| B-5451 | 6745 | 24.79 | 273 | 18.5 | 94.7 | 128 | 103 | 101 | 88 | 43 |
| R-442 | 6570 | 25.26 | 260 | 17.9 | 94.0 | 93 | 124 | 127 | 101 | 38 |
| B-5833 R | 6543 | 24.64 | 265 | 18.1 | 94.7 | 110 | 114 | 117 | 104 | 28 |
| C-355 | 6473 | 26.23 | 247 | 17.4 | 93.3 | 116 | 97 | 100 | 89 | 28 |
| B-5411 R | 6295 | 24.52 | 256 | 17.8 | 93.9 | 154 | 133 | 131 | 119 | 38 |
| 2763 RZ | 6079 | 22.83 | 266 | 18.1 | 94.7 | 151 | 160 | 161 | 131 | 30 |
| 2771 RZ | 5833 | 22.02 | 265 | 18.0 | 94.9 | 122 | 132 | 143 | 124 | 55 |
| C-271 | 5597 | 22.06 | 253 | 17.6 | 93.7 | 98 | 96 | 92 | 77 | 58 |
| B-4381 R | 5466 | 21.82 | 251 | 17.2 | 94.5 | 118 | 110 | 105 | 96 | 24 |
| 7172 RZ | 4558 | 20.42 | 223 | 16.1 | 92.4 | 43 | 51 | 50 | 54 | 3 |
| 73 RZ | 4460 | 18.45 | 242 | 16.8 | 94.0 | 65 | 71 | 71 | 62 | 55 |
| AVERAGE | 5947 | 23.19 | 256 | 17.7 | 94 | 111 | 112 | 112 | 98 | 38 |
| LSD 5% | 1053 | 3.43 | 20 | 1 | 1 | 32 | 62 | 59 | 51 | 37 |
| CV % | 10 | 8.7 | 5 | 3.4 | .7 | 17 | 33 | 31 | 31 | 57 |

Comments: Trial had crusting problems which caused the slow/weak emerging varieties to not establish good stands. Beet seedlings stressed, along with some seedling disease observed. Trial planted under good soil conditions but crusted after heavy rainfall. Rhizoctonia pressure was variable from light to moderate. A low to moderate amount of Aphanomyces scarring was seen on the roots. Cercospora leafspot control was fair to good. Harvest population was approximately 18,700 plants per acre. VARIETY 73 RZ had a planter plate seed size mismatch which caused lower population.

Trial Reliability: FAIR

Cooperating Agriculturist(s): Paul Wheeler – Michigan Sugar Company



Partnership
of:

*Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness*

**VARIETY TRIAL AVERAGES
2006**

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|---------------------------------------|--------------------------|---|
| Cooperator: | Average of Five Variety Trials | Tillage: | - |
| Location: | Bay City-Elkton-Ruth-Sandusky-Ontario | Harvest Date: | - |
| Planting Date: | - | Sample Date: | - |
| Previous Crop: | - | Herbicides: | - |
| Soil Type: | - | Replicated: | - |
| Row Spacing: | - | # Rows Harvested: | - |
| Fertilizer: | - | Fungicide: | - |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|-----------------|-------------|---------------------|------------|-------------|-------------|---------------------------|------------|------------|------------|---------------------|
| | | | | | | EARLY | MID | FINAL | HARVEST | |
| B-5833 R | 8230 | 29.93 | 276 | 18.5 | 95.6 | 141 | 179 | 191 | 181 | 15 |
| C-963 | 8193 | 28.54 | 288 | 19.3 | 95.2 | 141 | 199 | 203 | 190 | 41 |
| C-271 | 8091 | 28.74 | 282 | 18.8 | 95.4 | 130 | 183 | 187 | 168 | 31 |
| R-442 | 8084 | 28.79 | 281 | 18.9 | 95.1 | 131 | 177 | 178 | 158 | 27 |
| C-355 | 7989 | 29.02 | 276 | 18.6 | 94.9 | 130 | 170 | 186 | 172 | 11 |
| B-5451 | 7924 | 27.92 | 286 | 19.1 | 95.3 | 128 | 171 | 176 | 162 | 38 |
| B-5411 R | 7881 | 28.19 | 280 | 18.9 | 95.1 | 146 | 181 | 178 | 173 | 25 |
| 2763 RZ | 7854 | 28.10 | 280 | 18.6 | 95.6 | 122 | 204 | 208 | 188 | 69 |
| B-4381 R | 7823 | 28.17 | 278 | 18.5 | 95.7 | 116 | 160 | 168 | 167 | 11 |
| 2771 RZ | 7618 | 26.79 | 285 | 19.0 | 95.7 | 116 | 200 | 208 | 197 | 41 |
| 73 RZ * | 7468 | 27.35 | 272 | 18.3 | 95.2 | 99 | 152 | 154 | 152 | 33 |
| 7172 RZ | 7343 | 27.81 | 264 | 18.0 | 94.4 | 102 | 166 | 180 | 179 | 3 |
| AVERAGE | 7875 | 28.28 | 279 | 18.7 | 95.3 | 125 | 178 | 185 | 174 | 29 |
| LSD (5%) | 560 | 1.15 | 8 | .4 | .4 | 38 | 27 | 28 | 26 | 28 |
| C.V. (%) | 6 | 5 | 2 | 1.8 | .3 | 24 | 12 | 12 | 12 | 76 |

Comments: * Variety 73 RZ had a low population in two trials because of planter plate/seed size mismatch.

Trial Reliability: VERY GOOD

Cooperating Agriculturist(s):



Partnership
of:

*Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness*

On-Farm Research and Demonstration
2006 Variety Trial Emergence Results

| Variety | % Emergence | | | Suggested Seed Spacing / Inch* |
|---------|-------------|------|------|--------------------------------|
| | 2004 | 2005 | 2006 | |
| 7172 RZ | 64 | 53 | 63 | 4 |
| 73 RZ | | | 58 | 4 - 4.5 |
| B-4381 | | 54 | 60 | 4.5 |
| C-963 | 66 | 54 | 69 | 4.5 |
| C-271 | 68 | 60 | 69 | 4.5 |
| R-442 | 72 | 58 | 63 | 4.5 |
| 2763 RZ | | 62 | 73 | 4.5 |
| B-5451 | 72 | 59 | 63 | 4.5 |
| B-5833 | | 59 | 66 | 4.5 |
| 2771 RZ | | 63 | 74 | 4.5 |
| C-355 | | | 66 | 4.5 |
| B-5411 | | | 63 | 4.5 |

* Based on Average Emergence Conditions

On-Farm Research and Demonstration
2006 Rhizoctonia Beets

| Variety | Rhizoctonia Dead Beets / 1200 Ft.* | |
|-----------|---------------------------------------|------|
| | 2005 | 2006 |
| 7172 RZ | 16* | 4* |
| C-355 | - | 18* |
| B-5411 R | - | 34* |
| 5833 R | 50* | 39* |
| R-442 | - | 43* |
| B-4381 RZ | 66* | 47* |
| B-5451 | 76* | 58 |
| C-963 | 80 | 63 |
| C-271 | 83 | 77 |
| 2771 RZ | 116 | 58 |
| 2763 RZ | 132 | 79 |
| 73 RZ | - | 89 |

* Average of 2005-2006 Variety Trials – Not Significantly Different from Best Variety



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

NEMATODE TRIAL

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|---|--------------------------|---|
| Cooperator: | VADER FARMS | Tillage: | Fall Plow / Spring – Field Cult. 1x |
| Location: | Bay County – Akron | Harvest Date: | 10/16/06 |
| Planting Date: | 4/11/06 | Sample Date: | |
| Previous Crop: | Wheat with Clover | Herbicides: | Microrated 4x |
| Soil Type: | Heavy Loam | Replicated: | 3x |
| Row Spacing: | 30 Inch | # Rows Harvested: | 6 |
| Fertilizer: | Fall – 40-25-200 20 gal. 20-11-1 + Mn 135# N Side Dress | Fungicide: | Amistar – 2-8 Leaf Eminent, Headline, Eminent, Headline |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|----------------|-------------|---------------|------------|-------------|-------------|------------------------|--------|--------|---------|---------------|
| | | | | | | 10 DAY | 20 DAY | 30 DAY | HARVEST | |
| B-5833 R | 8610 | 32.16 | 267 | 18.1 | 95.0 | | | | | |
| B-5534 N | 8128 | 32.17 | 253 | 17.5 | 94.0 | | | | | |
| AVERAGE | 8369 | 32.16 | 260 | 17.8 | 94.5 | NOT TAKEN | | | | |
| LSD (5%) | 488 | 1.98 | 11 | .9 | .4 | | | | | |
| C.V. (%) | 2 | 1.75 | 1 | 1.4 | .1 | | | | | |

Comments: This is a high yielding trial. Trial was conducted to compare B-5534 N, a nematode tolerant variety to B-5833 R, a susceptible variety. **No nematodes were found in the field.** Four spray program gave excellent leafspot control in both varieties. Tonnage yields of both varieties were identical in the absence of nematodes. In the absence of cyst nematodes there is no advantage of planting B-5534 N. Four leafspot sprays were needed to control leafspot; it is susceptible to Rhizoctonia and is a lower quality beet.

Trial Reliability: EXCELLENT

Cooperating Agriculturist(s): Craig Rieman – Michigan Sugar Company



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

NEMATODE TRIAL

ON-FARM RESEARCH AND DEMONSTRATION

Cooperator: LAKKE-Ewald Farms

Location: Tuscola County

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|----------------|--------------|---------------|------------|-------------|-------------|------------------------|--------|--------|---------|---------------|
| | | | | | | 10 DAY | 20 DAY | 30 DAY | HARVEST | |
| B-5534 N | 10939 | 38.13 | 287 | 19.5 | 94.7 | | | | | |
| B-5833 R | 10415 | 36.57 | 285 | 19.3 | 94.8 | NOT TAKEN | | | | |
| AVERAGE | 10677 | 37.35 | 286 | 19.4 | 94.8 | | | | | |
| LSD (5%) | 1103 | .61 | 29 | 1.3 | 1.7 | | | | | |
| C.V. (%) | 3 | .47 | 3 | 1.9 | .5 | | | | | |

Comments: Nematode levels were not high but found on beets and in soil samples. This was a very high yield environment.

Cooperator: Meylan Farms

Location: Bay County

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|----------------|-------------|---------------|------------|-------------|-------------|------------------------|--------|--------|---------|---------------|
| | | | | | | 10 DAY | 20 DAY | 30 DAY | HARVEST | |
| B-5534 N | 7235 | 26.6 | 271 | 18.5 | 95.0 | | | | | |
| B-5451 | 6918 | 24.0 | 289 | 19.5 | 94.5 | NOT TAKEN | | | | |
| AVERAGE | 7077 | 25.3 | 280 | 19.0 | 94.8 | | | | | |
| LSD (5%) | 337 | 2.0 | 17 | 1.7 | 1.3 | | | | | |
| C.V. (%) | 1 | 2.3 | 2 | 2.5 | .4 | | | | | |

Comments: Nematodes were present at moderate to high levels. Variety B-5534 N had severe leafspot that caused burn down and high levels of Rhizoctonia Crown Rot. Variety B-5534 N is a high management variety that needs Quadris for Rhizoctonia Crown Rot control and additional leafspot sprays over standard varieties.



Partnership
of:

Sugar Beet Growers
Michigan Sugar Company
Michigan State University
Agribusiness

X-BEET

ON-FARM RESEARCH AND DEMONSTRATION

| | | | |
|-----------------------|---|--------------------------|--|
| Cooperator: | Bernia Family Farms | Tillage: | Chisel Plow – 1x Danish Tine |
| Location: | Akron | Harvest Date: | 11/14/06 |
| Planting Date: | 4/19/06 | Sample Date: | 10/10/06 |
| Variety: | C-963 | Herbicides: | Split Rate Progress Stinger - 2x |
| Soil Type: | Clay Loam | Replicated: | 4x |
| Row Spacing: | 22 Inch – 5.5 Inch Seed Spacing | # Rows Harvested: | 8 |
| Fertilizer: | 5 gal. 10-34-0 + 13 gal. 28% N + 4 gal. ThioSol + Micro's applied 2x2 - 25 gal. 28% Broadcast | Fungicide: | Eminent, Topsin+EDBC, Headline, Quadris applied 2-8 Leaf stage |

| VARIETY | RWSA | TONS PER ACRE | RWST | % SUGAR | % CJP | POPULATION 100 FT. ROW | | | | 1200 Ft. RHIZ |
|----------------|-------------|---------------------|------------|-------------|-----------|---------------------------|-----------|-----------|-----------|---------------------|
| | | | | | | 8 DAY | 14 DAY | 19 DAY | 28 DAY | |
| X-BEET | 8599 | 31.48 | 273 | 18.3 | 95.3 | 18 | 105 | 109 | 112 | - |
| PAT | 6381 | 26.95 | 237 | 16.6 | 93.5 | 0 | 44 | 54 | 63 | - |
| CHECK | 5816 | 24.63 | 236 | 16.8 | 93.0 | 0 | 25 | 39 | 48 | - |
| AVERAGE | 6932 | 27.69 | 249 | 17.2 | 94 | 6 | 58 | 67 | 74 | - |
| LSD (5%) | 609 | .83 | 23 | 1.2 | 1.2 | 3 | 13 | 15 | 14 | - |
| C.V. (%) | 5 | 1.73 | 5 | 4.1 | .8 | 27 | 13 | 13 | 11 | - |

Comments: Trial was conducted to compare and evaluate traditional priming (PAT) to a new priming method called X-BEET from GTG. All seed treated was from the same seed lot. Prior to emergence, a heavy rainfall occurred that formed a significant crust. Trial was crust busted with a quad-runner. X-BEET was significantly faster in emerging than traditional PAT on non primed CHECK seed. Faster emerging seed was better able to emerge through the crust before it hardened which produced a significantly higher yield. Low population beets have reduced quality and tonnage.

Trial Reliability: VERY GOOD

Cooperating Agriculturist(s): Craig Rieman – Michigan Sugar Company



Michigan Sugar Company – 2006
AVERAGE OF THREE YEARS
 OFFICIAL VARIETY TRIAL

VARIETIES APPROVED FOR THE 2007 GROWING SEASON

| APPROVAL | VARIETY | RWSA | RWST | % Suc | % CJP | T/A | % EMERG | CLS* Rating | NURSERIES | | | |
|---------------------|--------------|-------|-------|-------|-------|-------|---------|-------------|---------------------|------------------------|------------------------|-----------------------|
| | | | | | | | | | RA Root Aphid | RH Rhizoc- tonia | AP Aphano- myces | RZ Rhizo- mania |
| Fully Approved | Crystal 271 | 7282 | 259.5 | 18.00 | 93.93 | 28.05 | 64.0 | 3.17 | F | P | E | |
| | Beta 5451 | 7189 | 258.2 | 17.97 | 93.79 | 27.94 | 65.8 | 3.17 | E | F | E | |
| | Crystal 963 | 7149 | 256.5 | 17.91 | 93.66 | 27.86 | 65.5 | 3.10 | E | F | E | |
| | Beta 5310 | 7067 | 254.3 | 17.69 | 93.90 | 27.81 | 61.5 | 2.55 | G | P | E | |
| | Beta 5411R | 7038 | 254.0 | 17.96 | 93.07 | 27.69 | 51.7 | 3.29 | F | P | E | F |
| | Crystal 355 | 6897 | 253.1 | 17.70 | 93.62 | 27.29 | 61.3 | 1.60 | F | G | E | |
| | HM 2767 | 6804 | 260.3 | 17.97 | 94.18 | 26.09 | 66.4 | 2.87 | P | P | E | |
| | HM 2763Rz | 6772 | 255.4 | 17.67 | 94.11 | 26.47 | 66.7 | 3.43 | E | P | G | G |
| | HM 2771Rz | 6703 | 256.9 | 17.85 | 93.91 | 26.11 | 62.5 | 2.96 | F | P | E | G |
| | HM 7172Rz | 6691 | 248.1 | 17.56 | 93.13 | 27.09 | 57.3 | 3.03 | F | G | F | G |
| | HM 2761Rz | 6662 | 252.6 | 17.68 | 93.56 | 26.39 | 61.6 | 3.24 | F | P | E | G |
| SX Prompt | 6429 | 252.2 | 17.74 | 93.36 | 25.49 | 69.6 | 3.30 | E | F | E | | |
| Limited Approval | Crystal R442 | 7121 | 254.4 | 17.88 | 93.35 | 27.99 | 56.1 | 2.94 | G | P | E | F |
| Plant Thru 2008 | Beta 5833R | 7145 | 251.9 | 17.47 | 94.08 | 28.45 | 66.4 | 3.59 | E | F | | G |
| | MEANS | 6925 | 254.8 | 17.79 | 93.69 | 27.19 | 62.6 | 3.02 | | | | |

* Lower number indicates more resistance.



Michigan Sugar Company – 2006 Plant to Stand Trials Average of Four Locations in Michigan

| NO | VARIETY | RWSA | RWST | % Suc. | % CJP | T/A | % EMERG |
|----|--------------|------|--------|--------|-------|-------|---------|
| 13 | Crystal 271 | 7766 | 265.9 | 17.93 | 95.08 | 28.84 | 66.0 |
| 1 | Crystal 355 | 7660 | 264.3 | 17.87 | 94.99 | 28.99 | 61.0 |
| 11 | Beta 5833R | 7636 | 256.8 | 17.39 | 95.06 | 29.62 | 67.4 |
| 6 | Beta 5310 | 7579 | 262.4 | 17.76 | 95.04 | 28.79 | 61.6 |
| 10 | SX Prompt | 7567 | 267.6 | 18.21 | 94.67 | 28.35 | 65.9 |
| 9 | HM 2761Rz | 7519 | 261.5 | 17.77 | 94.82 | 28.66 | 59.1 |
| 5 | Crystal 963 | 7512 | 265.5 | 18.07 | 94.69 | 28.27 | 65.8 |
| 3 | Beta 5451 | 7501 | 262.9 | 17.82 | 94.93 | 28.55 | 62.6 |
| 8 | Crystal R442 | 7449 | 263.0 | 17.90 | 94.66 | 28.27 | 58.7 |
| 14 | Beta 5411R | 7412 | 256.3 | 17.49 | 94.67 | 28.77 | 54.8 |
| 15 | HM 2767 | 7271 | 269.4 | 18.08 | 95.35 | 26.74 | 58.5 |
| 12 | HM 73Rz | 7236 | 263.1 | 17.81 | 94.93 | 27.00 | 55.9 |
| 2 | HM 2763Rz | 6921 | 256.8 | 17.29 | 95.38 | 26.83 | 60.3 |
| 7 | HM 2771Rz | 6849 | 263.2 | 17.69 | 95.34 | 25.83 | 55.4 |
| 4 | HM 7172Rz | 6830 | 247.5 | 17.17 | 93.91 | 27.73 | 60.7 |
| | LDS (5%) | 495 | 7.9 | 0.45 | 0.54 | 1.77 | 6.3 |
| | CV | 4.7 | 2.11 | 1.77 | 0.40 | 4.40 | 7.3 |
| | Mean | 7381 | 261.75 | 17.75 | 94.90 | 28.08 | 60.9 |

Comments *on Sugarbeet Advancement Variety Trials*:

Growers should pay particular attention to the comments associated with each variety trial. Each trial has a particular disease/insect/set of circumstances that allows certain variety strengths and weaknesses to be expressed. For this reason; SBA trials are not averaged together, as a wrong conclusion may be reached. **When selecting varieties it is of utmost importance to know the field history of specific diseases, pest and other conditions that warrant specific varieties for specific problems / fields.** Be sure to examine all the data from Michigan Sugar Company Variety Trials as a primary source of variety information under more controlled environments.



*Steve Poindexter
Michigan State University Extension
Sugarbeet Advancement
Extension Sugar Beet Educator*

MARK YOUR CALANDARS!
2007 Bean and Beet Symposium
Tuesday, February 20, 2007
More Information to Follow

Michigan State University Extension
Saginaw County
One Tuscola Street
Suite 100
Saginaw, MI 48607-1287

NONPROFIT ORG
US POSTAGE PAID
ITHACA, MI
PERMIT #35

