

# Breaking Ground (in Northeastern Ontario)

## 2008 *Cochrane* oat plots

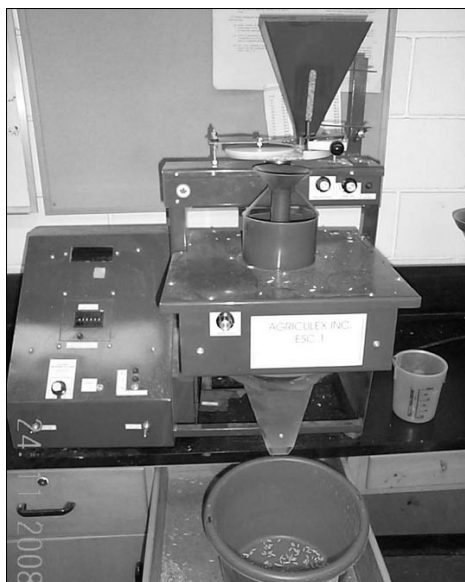
The objectives of this project; to evaluate different seeding rates of oats and their impact on yield and quality

1. lower seeding rate: target 200plants/m<sup>2</sup> ( or 800,000 seeds/ac)
2. medium seeding rate: target 250 plants/m<sup>2</sup> (or 1M seeds/ac)
3. higher seeding rate: target 300 plants/m<sup>2</sup> (or 1.2Mseeds/ac)

OMAFRA recommendations between 200-300 plants/m<sup>2</sup>

We also split the plots in two to evaluate 2 nitrogen rates; lower rate 45lbs and higher rate 65lbs of actual N

### Seed size information



- AC Rigodon 22,049 seeds/kg and 45.5 grams TKW
- Triple Crown 26,693 seeds /kg and 37.5 grams TKW
- OAC Markdale 21,758 seeds /kg and 41.6 grams TKW
- Lachute 20,448 seeds/kg and 44.5 grams TKW

\* This information is useful before you seed not too much after the work is done!

### Recommended seeding rates

Variety	Seeds /lbs	Low (800,000/ac)	Med (1,000,000)	High (1,200,000)
AC Rigodon	10,022	100lbs/ac	120lbs/ac	140lbs/ac
OAC Markdale	10,879	90lbs/ac	110lbs/ac	130lbs/ac
Triple Crown	12,084	80lbs/ac	100lbs/ac	120lbs/ac
Lachute	10,224	90lbs/ac	120lbs/ac	140lbs/ac

## Field variability Adjusted to a moisture level of 13.5%

Treatment	Higher N rate Yield per acre
AC Rigodon 110 ck1	2,258 lbs or 1.02T
OAC Markdale-110	2,703 lbs or 1.23 T
Triple Crown – 110	2,703 lbs or 1.23 T
Lachute – 110	2,661 lbs or 1.21 T
Ac Rigodon- 110 ck2	2,854 lbs or 1.29 T
AC Rigodon -120 lbs	3,145 lbs or 1.43 T
OAC Markdale -120	2,722 lbs or 1.23 T
Triple Crown – 120	2,845 lbs or 1.29 T
Lachute- 120	2,517 lbs or 1.14 T
AC Rigodon 110 ck3	2,855 lbs or 1.29 T
AC Rigodon- 130	2,614 lbs or 1.18 T
OAC Markdale-130	2,473 lbs or 1.12 T
Triple Crown- 130	2,642 lbs or 1.20 T
Lachute- 130	2,462 lbs or 1.17 T
AC Rigodon 110ck4	2,467 lbs or 1.12 T
<b>Average of plots</b>	<b>2,608 lbs or 1.18 T</b>

Average of the 4 checks = 2,608 lbs  
+/- 10 % variability is acceptable  
Therefore  
90% of 2,608 = 2,347 lbs  
110% of 2,608 = 2,868 lbs

### Seeding rates - conclusion

- Most of the seeding rates were above the OMAFRA / research recommendations
- seed cost per acre were higher
- no yield advantage to increase seeding rate. The plots confirmed that we should aim at the 800,000 – 1,200,000 seeds per acre for the best economical yield.

### Nitrogen rates -conclusions

- Cost of Nitrogen \$612 per tonne (\$15.27/ bag) for 34-0-0 2,205 x 34% = 750lbs actual N = \$.82/lb
- **Higher rate 200lbs** of 34-0-0 = 68lbs of N, cost \$56/acre average yield was 2,608 lbs
- **Lower rate was 130lbs** of 34-0-0 = 45lbs of N, cost \$37/acre Average yield was 2,001 lbs

**Conclusion:** extra N cost \$19 per acre more for an additional yield of 607 lbs. If oats are trading at \$245 per tonne (\$.11/lb) = \$66/ac - \$19 fertilizer = **net \$48/acre**

### Quality ? Excellent!

Variety	Grade	Average moisture at harvest %	Average bushel weight
AC Rigodon	#2	15.3%	45lbs
OAC Markdale	#2	15.6%	44lbs
Triple Crown	#2	15.6%	43lbs
Lachute	#2	15.4%	43lbs

Standard test weight for oats; 34lb/bu at 13.5% moisture

### Canola Plots at Ferguson farms

- **Field information:**
- 45 acres tilled at 50ft
- 2-4 acres plots
- 2007 wheat, chiselled plowed
- pH 7.4, phosphorous 35, potassium 137, Magnesium 526
- Seeded with 20' great plain with 5gal/ac 6-24-6 Alpine
- 200 lbs of 46-0-0 at seeding
- 100lbs of ammonium sulphate applied June 9<sup>th</sup>



### Canola Plots at Ferguson farms

	Dekalb 71-45RR	Dekalb 72-55RR	Dekalb 71-25RR
Plot size	4 acres	4 acres	37 acres
Seeding date	June 7 <sup>th</sup> 2008		
Herbicide	1/2 litre Round-up June 24 <sup>th</sup>		
Swathing date	September 11 <sup>th</sup>		
Combine date	October 13 <sup>th</sup>		
Yield (adj. @10%)	2,150lbs	2,048lbs/ac	1,771lbs/ac
Moisture at harvest	11.3%	9.6%	10.2%
Dockage	2.9%	1.4%	3.9%
Test weight	50.2lbs/bushel	51.4lbs/bushel	51.7 lbs /bushel

# ALGOMA CANOLA YIELD

Certified Crop Advisor Terry Phillips reports that Desbarats grower Paul Oikari undertook a Canola trial this past summer with three Dekalb products. The results are as follows:

- Dekalb 71-25: 1.333 mt/ac (2933.33#/ac)
- Dekalb 72-55: 1.360 mt/ac (2992.47#/ac)
- Dekalb 71-45: 1.290 mt/ac (2838.71#/ac)

In all three cases, yields were recorded on harvested strips measuring 28' X 578' (.372 ac). For more information, contact Paul at 705-782-6823.