Seeding Rates of Oats in Northeastern Ontario

(Cochrane SCIA Project 2008)

Purpose: The objectives of this project; to evaluate different seeding rates of oats and their impact on yield and quality. Lower seeding rate: target 200 plants/m² (or 800,000 seeds/ac) medium seeding rate: target 250 plants/m² (or 1M seeds/ac) higher seeding rate: target 300 plants/m² (or 1.2M seeds/ac) OMAFRA recommendations between 200-300 plants/m²

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

Methods: 4 varieties were selected by the cooperator and AC Rigodon was chosen as the check.

- Results: 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.

- 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/ac 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

Summary: Quality was good on all 4 varieties; they all made the Quaker grade. Bushel weight ranged from 43-45 lbs and moisture at harvest was at 15.5%

Next Steps: this is the 3rd consecutive year that the Cochrane Soil and Crop Improvement Association have had an oat demonstration project.

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