

Grain Production in Newfoundland 97/98

Creating the Competitive Edge

SUMMARY

The average grain yields for Chapais and AC Sterling barley in 1997 were 5.3 tonnes/ha (2.4 tons/ac) and 4.5 tonnes/ha (2.0 tons/ac) respectively. Chapais barley yielded more total digestible nutrient (TDN) and crude protein (CP) than AC Sterling at all locations except Deer Lake and Lethbridge where the CP yields were higher in AC Sterling. The average TDN content for Chapais and AC Sterling were 75.5% and 76.5% respectively. The average CP content for Chapais and AC Sterling were 10.1% and 10.6% respectively. In a small plot experiment in which Chapais barley received 316 kg/ha (283 lbs/ac) 19-19-19, the CP content increased with additional N-topdress (30 and 60kg/ha) when seeded May 30th and June 13th but did not increase with additional N-Topdress when seeded June 28th.

Wheat grain yields were higher in Borden and Fundulea winter wheats than in the Belvedere spring wheat. Belvedere spring wheat yields averaged 3.9 tonnes/ha (1.8 tons/ac) while Borden and Fundulea yields were 5.3 tonnes/ha (2.4 tons/ac) and 5.4 tonnes/ha (2.4 tons/ac). Borden and Fundulea winter wheat CP contents were 14.7% and 15.9% and their TDN contents were 77.4% and 78.1% respectively. The CP and TDN content for Belvedere spring wheat grown at Robinsons were 15.6% and 81.2%. The TDN content was 79.1% for Belvedere at Lethbridge but it is unknown why the CP content was low at 9.4%. The highest straw yields were obtained from Borden Winter Wheat grown at the ACCCRC in St. John's. However, strawberry producer, K. C. Robertson, uses oat straw with the grain attached as a mulching material.

AC Baton hulless oat and AC Rigodon covered oat yields were 4.2 tonnes/ha (1.9 tons/ac) and 3.4 tonnes/ha (1.5 tons/ac) respectively. The CP and TDN content of AC Baton hulless oats were 15.0% and 78.1% respectively. The nutrient analysis of the AC Rigodon was not available at the time of this report.

Silage corn was grown successfully in 1997 in Maidstone and St. David's by dairy farmer Brent Chaffey. The moisture content of his silage however was high at 74%. Silage corn was harvested late in October after all the forage harvest was completed. The small grain can successfully mature in areas which receive at least 1200 Growing Degree Days (GDDs). Areas such as Cormack which do not receive 1200 GDDs may be limited to high moisture grain production.

The electrical costs to condition and store grain at Wooddale and Reidville were \$0.17 and \$0.30 per tonne. The grain was stored at 16.0 - 20.0% moisture content for 10 months from September to July with little spoilage. According to the Ontario Ministry of Agriculture and Food Publication, "Natural Air Drying of Barley", barley with 18.3% moisture content can be safely stored for 50 weeks at 10°C.

During the feeding trials at Reidville and Wooddale, barley and wheat were incorporated at 31% and 48% of the total grain ration. The farmers saved \$1,532.47 and \$1,754.04 per month. The reduction in the dairy cost of production (COP) was \$3.24/hL and \$3.73/hL for Reidville and Wooddale respectively. There was no decrease in mean milk yields during the trial period.

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