

Breaking Ground

(in Northeastern Ontario)

Temiskaming Crops Coalition

Annual Report

2004

Manitoulin District Environmental Farm Plan.

Thursday, Dec. 01,
2005, at Manitoulin.

Contact Mary Scott
at 705-377-4928.

Corn Grazing Project 2004

Little boy blue

Come blow your horn

Cows in the corn!

Barry Potter

Livestock Specialists, OMAF

Introduction:

This project looked at extending the grazing season for beef cattle by planting corn in the spring for grazing in November / December. The corn was actually grazed in September, as the corn experienced frost damage on August 24th. Grazing the corn in September allowed our stockpiled grass to continue to grow during the warm, dry September.

Project Description

Area: 3.7 acres of tilled (100-ft) clay soil

Animals:

- Purebred Charolais Cows, average weight 1450 lbs.
- Calves born mid March to late May.
- Cows grazed for 26 days, from September 16 to October 12.
- On September 16, 41 adult animals and 21 calves were placed in the corn patch. On September 22,

ten calves were weaned, leaving 11 calves and 31 adult animals. On September 25, ten adult animals were returned to leave 41 adult animals and 11 calves for the duration of the trial. This allowed for a total of 1036 cow days and 340 calf days, or 280 cow days per acre, and 92 calf days. The trial results focus on costs per cow days per acre.

Field

Previous crop: trefoil-grass mixture plowed down fall 2003

Soil Test	
pH	6.5
P	13 Medium
K	237 Very High
Mg	828 High
Texture	Fine

Cultivation

The field was mould board plowed in the fall of 2003. The field was disked in the spring of 2004. Fertilizer was broadcast at a rate of 100-40-0. The field was then cultivated and seeded on June 1, 2004 with a conventional 20 by 6-inch spacing conventional drill. Every two out of three runs were blocked to provide in-field rows of 18 inches. Two units of corn were seeded on 3.7 acres (originally expected to be 5 acres.)

The crop was strip grazed using a single strand of electrified polywire to control access. Cows were allowed into a new section every two to three days, as they cleaned up the corn and residue. A three-point hitch mower was used to cut a swath about 4 feet wide in the corn. This allowed for a single hotwire to separate sections of corn to allow the cattle access as they moved down the field. The mowed strip allowed easier placement of the fence wire, and provided an opportunity for the cows to see the fence.

The field was chisel plowed post grazing. An observation was that the ground of the corn land was compacted and harder to chisel than the canola land next to it. During the grazing period the weather was drier than normal, reducing what could have been a higher incidence of compacting.

Results and Discussion

Plant population count one month after planting: 41849 plants per acre. Although the corn was grazed earlier than planned, it allowed the grazing season to be extended (into November) by sparing the other forages that had been stockpiled, which the cattle utilized after the corn was finished.

Algoma District Environmental Farm Plan Workshop.

Contact
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705-842-0392.

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Animal Behaviour: Upon entering a new block, the cattle would go to the center of the area and then graze out to the sides. The cows ate almost all of the plant. Very little residue remained save for about six to ten inches of the corn stalk once the cows had finished grazing a block.

Costs: The costs for this project ended up being \$0.79 per cow day of grazing. We pay pasture rent at \$0.53 per cow calf pair per day at another location. The corn was more expensive to grow than traditional grass pasture but provided us with grazing during a critical interval when we would have been without pasture. Stored feed costs us approximately \$1.00 per cow per day.

Conclusions: The corn fitted into an overall grazing program. It would be interesting to observe results in a wet fall. The corn provided extra grazing at less cost than stored feeds. Other forage species may supply the same benefit at less expensive costs.

Table 1. Total Project Costs

	Per Acre	Project	Per cow day
Machinery	\$53.00	\$196.10	\$0.189
Seed	\$96.76	\$358.00	\$0.346
Fertility	\$55.00	\$203.50	\$0.196
Spray	\$4.75	\$17.58	\$0.017
Labour	\$2.16	\$45.00	\$0.043
Total Cost	\$211.67	\$820.18	\$0.79

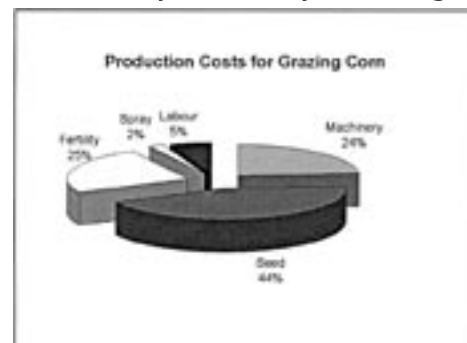
Table 2. Machinery Costs: Based on 2004 Custom Rates

	Per Acre	Project Cost
Plowing	\$18	\$55.50
Disking	\$12	\$44.40
Cultivating	\$9	\$33.30
Seeding	\$10	\$37.00
Spraying	\$7	\$25.90
Total Machinery		\$196.10

Labour

Set up Fencing: 1.5 hour
Tear Down: 1 hour
Movement: 8 times @ 0.25 hours = 2 hours
Total Labour: 4.5 hours @ \$10 per hour = \$45.

Table 3. Project Costs by Percentage



Other Costs

Fertility: 100-40-0
Cost: \$55 / acre X 3.7 acres = \$203.50
Seed: Dekalb DKC 2712
Roundup
Ready: CHU 2250: 2 X \$179 = \$358.00
Crop was sprayed with Transorb Roundup after emergence at 0.5 litres per acre x \$9.50 / l = \$4.75 x 3.7 = \$17.58.

Thanks to the following for their support:

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