# 2001 FORAGE COST OF PRODUCTION

**Survey conducted and data compiled**

**by**

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# 2001 Forage Cost of Production

| Yield per Acre | Average * |
|---|---|
| Average Yield per Acre (Bales) | **8.3** |
| Average Weight per Bale (Pounds) | **840** |
| Average Yield per Acre (Tonnes) | **3.49** |
| **VARIABLE COSTS** | |
| **Pre-Harvest Variable Costs - First Year** | |
| Seed | **31.88** |
| Manure (Dairy) | **246.09** |
| Limestone | **161.56** |
| Fertilizer (17-17-17) | **30.92** |
| Ammonium Nitrate (34-0-0) | **34.84** |
| Machinery Operating Expense | **36.63** |
| Labour | **119.88** |
| **Pre-Harvest Variable Costs - 2-6 Years** | |
| Manure (Dairy) | **219.31** |
| Fertilizer (17-17-17) | **30.74** |
| Machinery Operating Expense | **31.03** |
| Labour | **83.88** |
| **Harvest Variable Costs - 2-6 Years** | |
| Machinery Operating Expense | **35.48** |
| Labour | **24.44** |
| Storage | **3.41** |
| **6 Year Average** | **181.68** |
| **TOTAL VARIABLE COSTS** | **181.68** |
| **FIXED COSTS** | |
| Depreciation - Machinery and Bunker | **72.45** |
| Insurance | **30.38** |
| Repairs | **45.74** |
| Taxes | **0** |
| Interest - Machinery and Bunker | **25.88** |
| **TOTAL FIXED COSTS** | **174.45** |
| **TOTAL COST per ACRE** | **356.13** |
| **YIELD** | **3.49** |
| **COST per TONNE** | **102.04** |

* The average is calculated based on a weighted average of the 10 producers surveyed.

## METHODOLOGY

This survey was conducted during the spring of 2002. Information was obtained using financial information as well as on-farm interviews. A total of ten dairy producers were interviewed; three from the Eastern Region (in particular the Goulds area), four from the Central Region and three from the Western Region. The average productive life of the fields surveyed was 6 years with a high of 10 years on some farms. In many cases, producers were asked to take the entire expense as reported on financial statements (such as fertilizer) and estimate the amount used solely for forage production.

**Seed** - This expense was based on a triple mixture of timothy, clover and alfalfa. It was calculated using data from those farms that plowed down existing forage fields and replanted this acreage in 2001. These fields were considered establishment fields or first year acreage.

**Manure** - A cost of $26.63/t was used to calculate the dairy manure inputs used on all farms. This figure was supplied by the Soils and Land Management Division of The Department of Forest Resources and Agrifoods and was based on average levels of Nitrogen, Phosphorous and Potassium per tonne of dairy manure.

**Limestone** - Producers paid $25.00/t for bulk limestone.

**Fertilizers** - Most producers used 17-17-17 as fertilizer in combination with dairy manure. The average price per tonne was taken from financial statements and re-confirmed using prices supplied by EastChem Ltd.

**Ammonium Nitrate** - All producers used 34-0-0 on new establishment fields along with 17-17-17 and dairy manure. The average price per tonne was taken from financial statements and re-confirmed using prices supplied by EastChem Ltd.

**Machine Operating Expense** - This expense consisted of fuel and oil as well as baler wrap and twine but did not include repairs.

**Labour** - For Crop Insurance purposes, labour was broken down into pre-harvest (plowing, planting, manure spreading, etc.) and harvest (cutting, baling, transporting). Hourly wages ranged throughout the province from a low of $8.75 per hour to a high of $12.25 per hour. The owner's wage was assumed to be $10.00 per hour.

**Storage** - The Eastern Region producers that were surveyed used round bale silage and therefore had no storage expense. Some Central Region producers and Western Region producers used either a combination round bale system and bunker silos or exclusively bunker silos. The storage expense consisted of repairs to silos and coverings for round bales.

**Depreciation** - Straight-line depreciation method was used for both equipment and bunker construction.

**Insurance** - Farm insurance policies include all of the farm equipment, buildings, liability, etc. under

one all inclusive price. Insurance expense on individual pieces of machinery was obtained from Cooperators Insurance based on the farmers' description of the farm machinery.

**Repairs** - All producers, except for one, repaired their equipment on-farm using farm labour. One producer had all repairs done off-farm. The repairs expenses consisted of parts only and does not include labour (except for the one farm using off-farm repairs).

**Taxes** - All producers had exemptions from municipal property taxes.

**Interest** - This expense was taken from financial statements based on long-term loans for the purchase of equipment or the construction of bunker silos. Producers took the total farm interest expense and estimated the amount for forage equipment and bunker silos.

## RECOMMENDATION

This survey was conducted by Gerry Wicks, Economist, Department of Forest Resources and Agrifoods with the intent of offering forage insurance to dairy producers. Additional information may be obtained by contacting the author of this report. Most of the data supplied by the producers surveyed was an estimate of the total expense used in the production of forages. It is recommended that any future cost of production survey for forages should involve a detailed year-long analysis of particular fields identified as average yielding fields on a per farm basis. Field records should be used to accurately monitor all inputs to the field as well as the total output based on a particular moisture content.