



PLANNING FOR PROFIT



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

**Irrigated Alfalfa Silage
Establishment Year (2 cuts)
Quesnel River
Spring 1993**

Agdex 121-810

Introduction

The planning process provides producers with the opportunity to look at their operation as a group of distinct enterprises. Alternative enterprises should be evaluated on the basis of **Contribution Margin**, taking into consideration resource constraints, market opportunity, risk, and uncertainty.

The **Contribution Margin** must provide funds for interest, overhead, and other indirect expenses as well as a return for living expenses, loan repayment, and investment. These items should be included in the overall farm plan which will include a **Projected Income Statement** and **Projected Cash Flow Statement**.

Key Factors Affecting Profit

	Target
Quantity	11-15 tons/acre (65% moisture)
Price	\$30/ton
Quality	14-16% crude protein

Silage is heavy, so long distance hauling is inefficient. It must be produced near the location where it will be sold or fed. Preservation and storage facilities must be in good condition and free of openings where air may enter, to ensure an adequate and nutritionally suitable winter feed. Timely harvesting will minimize losses resulting in silage of a high quality. Alfalfa cut when 10% of the plants show first bloom will have a crude protein content of 14-16%.

Marketing Alternatives

Silage has limited market potential; it may be marketed through the sale of cattle.

Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D
%Inc											20	20
%Exp				35	15	10	10	20	10			

The above information indicates the timing of monthly flow of funds included in the Contribution Margin only. A complete **Projected Cash Flow** should include indirect expenses, capital sales and purchases, loans and personal expenses.

Rules of Thumb

Direct Expense % of Income	35-40%
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The above indicators are provided for comparison purposes. They are set out as potential targets for alfalfa silage production.

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ALFALFA SILAGE

Target Yield - 13 Tons/Acre

Contribution Margin 1 Acre of Irrigated Alfalfa Silage Establishment Year

Total Income

	Yield	Price	Unit	Income
Alfalfa Silage	13	\$30.00	Ton	\$390.00

Direct Expenses

	Quantity	Price	Unit	Expense
<u>Seed</u>				
Orchard Grass	4	\$2.30	lb.	\$9.20
Alfalfa	6	2.00	lb.	12.00

Fertilizer

18-18-18-1	180	0.14	lb.	25.24
21-0-0-24	50	0.11	lb.	5.67
0-0-60	100	0.09	lb.	8.85
Borate 40	7	0.35	lb.	2.45

Silage Cover 70 0.04 sq.ft. 2.82

Irrigation 18.51

Fuel Costs 24.05

Machine Repair & Maintenance 35.38

Total Direct Expenses \$144.17

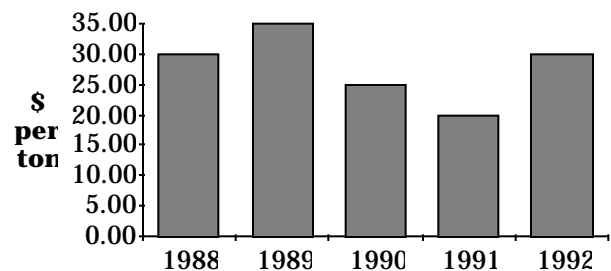
Contribution Margin \$245.83

Buildings and Machinery Replacement Cost Total Farm Size - 1,000 Acres (100 Acres Alfalfa Silage)

Buildings	\$47,500
Power Machinery	83,000
Field Machinery	29,000
Harvesting Equipment	71,000
Irrigation	48,000
Small Tools & Other	8,000
Vehicle	<u>15,000</u>

Total \$301,500

Silage Price Cariboo



Contribution Margin - Sensitivity Analysis

The table below lists the changes to contribution margin as quantity of yield changes and price received varies.

Price \$/Wet Ton	Yield Tons per Acre			
	11	12	13	14
20.00	76	96	116	136
25.00	131	156	181	206
30.00	186	216	246	276
35.00	241	276	311	346

This information is provided as a guideline only. Target yield indicates above average production. An individual crop plan should be developed by each producer. Planning forms may be obtained from your local office of the B. C. Ministry of Agriculture, Fisheries and Food.