



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

PLANNING FOR PROFIT

Corn Silage Eastern Fraser Valley Summer 1994

Agdex 120 - 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 Budget**.

Key Factors Affecting Profit

	Target
Quantity	Min 28 tons/acre
Quality	Min 25% Dry Matter
Price of Product	\$1.10 - 1.30/lb

It is important to select a hybrid appropriate for the area. Soil temperature should be at least 50 degrees Fahrenheit before planting and planting should take place by May 15. An adequate weed control program is essential to ensure optimum yield. Good soil fertility through proper crop rotation, adequate lime, fertilizer and manure application should also be practiced. In some cases, irrigation and silage additives will be incorporated into the production process to increase returns.

Marketing Alternatives

A limited opportunity exists to market corn silage. Most of the crop is not actively marketed, instead it is produced for on-farm feeding to dairy and beef cattle and therefore income is realized when the crop is transferred to the livestock enterprise.

Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D
%Inc	10	10	10	10	10	10	10	10			10	10
%Exp				15	20	20	5			10	30	

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

Machinery Investment	<\$4,500/acre
Direct Expenses % of Income	25 - 30%

The above indicators are provided for comparison purposes. They are set out as potential targets for corn silage production.

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CORN SILAGE

Target Yield - 28 tons/acre

Contribution Margin 1 Acre of Corn Silage Eastern Fraser Valley

Total Income

	Yield	Price	Unit	Income
Corn Silage (25% DM)	28	\$35.00	ton	\$980.00

Direct Expenses

	Quantity	Price	Unit	Expense
Seed	.4	\$95.00	bag	\$38.00
<u>Fertilizer</u>				
Lime	.5	95.00	MT	47.50
Manure	10	0.00	ton	0.00
0 - 0 - 60	185	.15	lb.	27.75
11 - 52 - 0	90	.23	lb.	20.45
46 - 0 - 0	185	.15	lb.	27.75

Herbicide

Atrazine	1.5	5.70	litre	8.55
Dual	1	24.90	litre	24.90
Primextra	3	9.00	litre	27.00

Fuel, Oil & Lube				28.75
Equipment Repair & Maintenance				28.80

Crop Supplies and Service

Silo Cover	28	.15	ton	4.20
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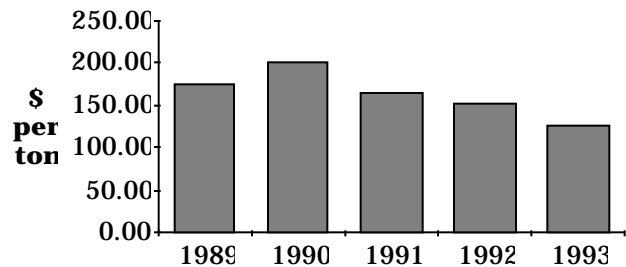
Total Direct Expenses \$283.65

Contribution Margin \$696.35

Buildings & Machinery Replacement Cost Total Farm Size - 90 Acres

Machinery Shed	\$15,000
Bunker Silo	60,000
Power Machinery	90,000
Field Machinery	75,500
Harvesting Machinery	40,500
Vehicles	<u>119,000</u>
Total	\$400,000

Fraser Valley Alfalfa Hay



Contribution Margin - Sensitivity Analysis

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

Price \$/ton	Yield Tons per Acre			
	20	24	28	32
25.00	216	316	416	516
30.00	316	436	556	676
35.00	416	556	<u>696</u>	836
40.00	516	676	836	996

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.