



PLANNING FOR PROFIT



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

Double Crop Barley Silage Kamloops District Spring 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
Yield	6 tons of hay equivalent
Price	\$105.00/ton
Direct Expenses	< \$160/ton

The yield of 6 tons of hay equivalent per acre is obtained by seeding early, using adequate fertilizer (based on soil test), timely first cut harvest and prompt reseeding followed by a rapid irrigation coverage to ensure even germination.

Good storage includes rapid filling and packing of the silage to exclude air and covering to protect silage. Well-designed silage storage systems are required to reduce storage losses.

Silage should be included in a well-balanced ration based on feed analysis results and fed in well-designed feed bunks to minimize wastage.

Marketing Alternatives

Silage is grown to be used as a feed for a livestock enterprise. The prices used are an indicator of the value of the cost of replacement forages. The high cost of moving silage reduces the value of the silage as a commercial crop.

Cash Flow Timing

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

The above information indicates the timing of monthly flow of funds included in the contribution margin only. Typically, silage will be held over the year end for winter feed and the returns will not be realized until the livestock is sold. A complete **Projected Cash Flow** should include indirect expenses, capital sales and purchases, loans and personal expenses.

Labour Time

Land Preparation	50 - 60 min./acre
Fertilizing	8 - 10 min./acre
Seeding	15 - 20 min./acre
Harvesting	80 - 85 min./acre

The above indicators are based on the actual field time with the equipment complement used in this budget, which is assumed to be in top operating condition. Individual operators may vary from this depending on equipment size, land and operator expertise.

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DOUBLE CROP BARLEY SILAGE

Target Yield - 6.0 Tons/Acre

Contribution Margin 1 Acre of Double Crop Barley Silage Kamloops

Income

	Yield	Price	Unit	Income
First Crop	3.5	\$105.00	ton	\$367.50
Second Crop	2.5	105.00	ton	262.50
Total Income				\$630.00

Direct Expenses

	Quantity	Price	Unit	Expense
Seed - 1st Crop	75	\$.12	lb.	\$8.70
Seed - 2nd Crop	75	.12	lb.	8.70

Fertilizer

46 - 0 - 0	330	.14	lb.	46.65
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Machinery Costs

Land Preparation				13.70
Seeding				6.60
Fertilizing				2.40
Irrigating				12.45
Harvesting				20.30
Trucking (field to bunker silo)				8.25

Crop Supplies and Service

Silo Cover	18	.15	ton	2.70
Irrigation Hydro	8	2.90	use	23.20
Water Rights	2	.55	acre foot	1.10

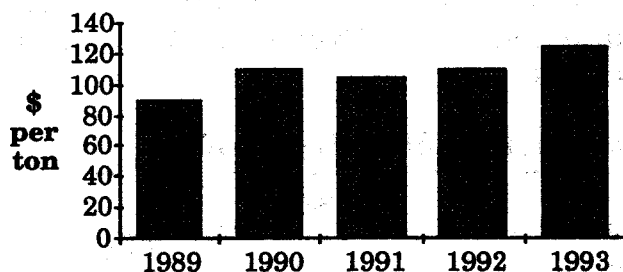
Total Direct Expenses \$154.75

Contribution Margin \$475.25

Buildings & Machinery Replacement Cost Total Cultivated - 200 Acres Silage Production - 70 Acres

Buildings	\$39,000
Bunker Silo	35,000
Irrigation Equipment	83,000
Power Machinery	57,000
Cultivation Equipment	47,700
Harvesting Equipment	55,300
Vehicles	63,000
Total	\$380,000

Okanagan Alfalfa Hay



Contribution Margin - Sensitivity Analysis

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

Price \$/ton	Yield Tons per Acre			
	5.0	5.5	6.0	6.5
90.00	295	340	385	430
95.00	320	368	415	463
100.00	345	395	445	495
105.00	370	423	475	528
110.00	395	450	505	560

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.