



PLANNING FOR PROFIT

Province of British Columbia
Ministry of Agriculture, Fisheries and Food

Alfalfa Hay Establishment Kamloops District Spring 1993

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 Statement**.

Key Factors Affecting Profit

	Target
Yield	3.5 tons/acre
Price: Alfalfa Hay	\$100.00/ton
Oat Hay	\$80.00/ton
Quality	60% TDN

The variety should be selected on the basis of yield, disease resistance and winter hardiness for your area.

Alfalfa establishment requires the seed bed to be firm and fertilized according to requirements determined by a soil test.

Irrigation water should be provided in frequent light applications to aid germination.

The oat crop must be harvested early to reduce competition, prevent weeds going to seed and enhance the vigour of the alfalfa stand.

Marketing Alternatives

Marketing alternatives for hay producers include local ranchers who may prefer to purchase hay requirements rather than produce hay. There may be an additional requirement for extra feed during drought or bad weather conditions.

Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D	
%Inc									10	10	10	20	20
%Exp			20	25	5	10	10	10	15	5			

The above information indicates the timing of monthly flow of funds included in the Contribution Margin only. Twenty percent of the cash would be realized from sales in the following year. A complete **Projected Cash Flow** should include indirect expenses, capital sales and purchases, loans and personal expenses.

Rules of Thumb

Irrigation Equip. Investment	\$415/acre
Equipment Investment	\$780/acre
Building Investment	\$200/acre

The above indicators are provided for comparison purposes. They are set out as potential targets for alfalfa hay establishment.

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Alfalfa Hay Square Bale

Target Yield - Oat Hay - 2.5 Tons / Acre
Alfalfa Hay - 1.0 Tons / Acre

Contribution Margin 1 Acre of Alfalfa Hay Establishment Year

Income

	Yield	Price	Unit	Income
Oat Hay	2.5	\$80.00	Ton	\$200.00
Alfalfa Hay #1	1.0	\$100.00	Ton	100.00
Total Income				\$300.00

Direct Expenses

	Quantity	Price	Unit	Expense
<u>Seed</u>				
Alfalfa	12	\$2.36	lb.	\$ 28.32
Oats	40	0.20	lb.	8.00

Fertilizers

11-55-0	250	0.21	lb.	52.52
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(actual rates should be based on soil tests)

Crop Supplies & Services

Twine	0.3	28.74	Roll	8.05
Hydro				20.32
Water Rights	2.5	0.50	AcFt	1.25
Machine Repairs & Maintenance				40.27
Fuel Costs				30.25

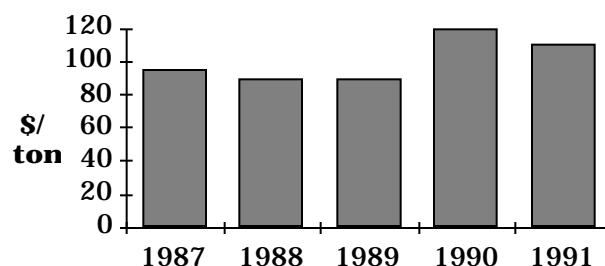
Total Direct Expenses **\$201.58**

Contribution Margin **\$98.42**

Buildings and Machinery Replacement Cost Total Farm Size - 200 Acres Alfalfa Establishment - 34 Acres

Machine Shed & Shop	\$25,000
Hay Storage (4000 sq. ft.)	14,000
Power Machinery	50,000
Field Machinery	24,000
Harvesting Equipment	58,400
Irrigation	83,000
Small Tools & Miscellaneous	8,000
Vehicle	15,000
Total	\$277,400

Alfalfa Hay Prices Okanagan



Contribution Margin - Sensitivity Analysis

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

Weighted

Price \$/Ton	Yield Tons per Acre			
	2.5	3.0	3.5	4.0
65.00	(39)	(7)	26	58
75.00	(14)	23	61	98
86.00	13	56	98	142
95.00	36	83	131	178

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.