



PLANNING FOR PROFIT



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

**Grass-Legume Hay Establishment
Peace River
Spring 1995**

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	2 tons/acre
Price: Oat Hay	\$40.00/ton
Quality	61-62% TDN 8.5% - 9% Crude Protein

Successful establishment and long term stand production require soil fertility, available nutrients, adequate moisture, and effective weed control. The oat hay should be harvested early to reduce competition, prevent weeds going to seed, and enhance the vigour of the forage stand. Forage quality is affected by stage of maturity at harvest. Proper handling and storage facilities will maintain good feed quality.

Marketing Alternatives

Limited opportunity exists to market oat hay. The majority of the crop is produced for consumption on the farm. Livestock operations would realize the cash income when the forage is transferred to the livestock enterprise. It is possible to sell excess hay in local markets to individuals with small livestock holdings. There may be an additional market 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	15	15	15	15						10	15	15
%Exp				30	35	10	15	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

Building & Equip. Investment	\$150-200/acre
Direct Expense % of Income	80% - 90%

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

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GRASS LEGUME HAY ESTABLISHMENT

Target Yield - 2 Tons Oat hay/Acre

Contribution Margin 1 acre of Alfalfa Hay

Income

	Yield	Price	Unit	Income
Oat Hay	2	40.00	ton	\$80.00
Total Income				\$80.00

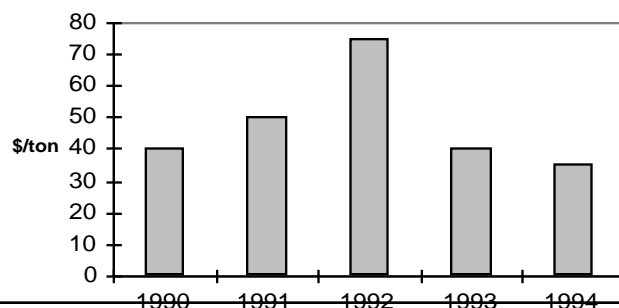
Direct Expenses

	Quantity	Price	Unit	Expense
<u>Seed</u>				
Timothy	3	0.79	lbs	\$ 2.37
Red Clover	5	0.99	lbs	4.95
Oats	50	0.11	lbs	5.50
Innoculant	0.09	3.00	pouch	0.27
<u>Fertilizers</u>				
34-0-0	100	0.122	lbs	12.20
12-51-0	50	0.199	lbs	9.95
Fuel Costs				9.10
Machine Repair & Maintenance				22.30
Twine	0.107	15.50	roll	1.66
Total Direct Expense				\$68.30
Contribution Margin				\$11.70

Buildings and Machinery Current Market Value Total Farm Size - 1,000 Acres

Buildings	\$20,000
Power Machinery	75,000
Field Machinery	55,000
Tools	<u>15,000</u>
Total	\$165,000

Hay Prices



Contribution Margin - Sensitivity Analysis

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

PRICE \$/ton	Yield Tons Per Acre			
	1.6	1.8	2	2.2
20.00	-36.30	-32.30	-28.30	-24.30
30.00	-20.30	-14.30	-8.30	-2.30
40.00	-4.30	3.70	11.70	19.70
50.00	11.70	21.70	31.70	41.70

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.