



PLANNING FOR PROFIT



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

Grass-Legume Hay Round Bale 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	1.25 tons/acre
Price: Grass-Legume Hay	\$40.00/ton
Quality	60% TDN 11% Crude Protein

It is assumed most round bales are used on farm to feed livestock. To get the best returns from your forage production, balance rations for each class of livestock, feed the amount required for the performance desired, and minimize feed waste by using bunks or feeding on clean ground each day. Pasture yields from late fall grazing are included.

Forage quality is affected by stage of maturity at harvest. Proper handling and storage facilities will maintain good feed quality.

Marketing Alternatives

Marketing alternatives for hay in round bales is limited to local ranchers who may prefer to purchase hay requirements rather than produce their own winter feed supply. 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. 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							20	35	35	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	10% - 20%

The above indicators are provided for comparison purposes. They are set out as potential targets for grass-legume hay production using the round bale system.

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GRASS LEGUME HAY ROUND

Target Yield - 1.25 Tons /Acre

Contribution Margin 1 acre of Grass Legume Hay

Income

	Yield	Price	Unit	Income
Hay	1.25	40.00	ton	\$50.00
Fall Pasture	0.25	40.00	ton	10.00

Total Income 60.00

Direct Expenses

	Quantity	Price	Unit	Expense
Fuel Costs				\$3.30
Machine Repair & Maintenance				5.39
Twine	0.067	15.50	roll	1.04

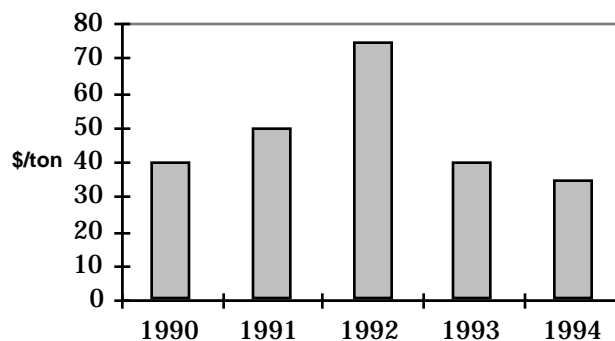
Total Direct Expense \$ 9.73

Contribution Margin \$50.27

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	1.25	1.5	1.75
20.00	10.27	15.27	20.27	25.27
30.00	20.27	27.77	35.27	42.77
40.00	30.27	40.27	50.27	60.27
50.00	40.27	52.77	65.27	77.77

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.