



PLANNING FOR PROFIT

BRITISH COLUMBIA Ministry of Agriculture and Food

**Alfalfa Seed
Peace River
Spring 1998**

Agdex 140-810

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**.

Factors of Profit and Marketing

Alfalfa seed production depends on the introduction of leaf cutter bees for pollination. The crop and the bees both require intense management during the production period and both result in marketable products, alfalfa seed and leaf cutter cocoons.

Alfalfa seed production is very dependent on soil type and climate so field selection is critical. Terraces of major river valleys (often the most expensive land) are preferred locations.

Weed control is critical as both pollination and seed production are negatively affected by weed competition. Weed control options are limited and expensive.

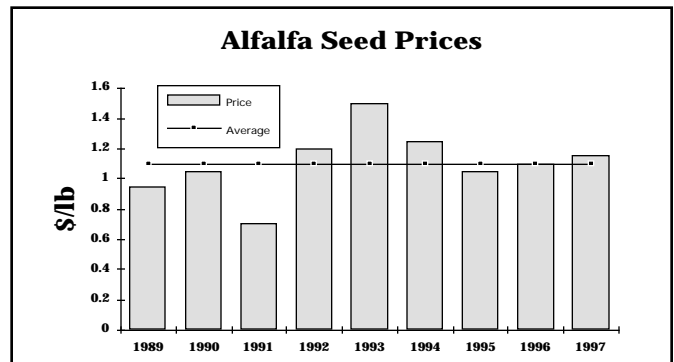
Alfalfa seed values are dependent on the variety, pedigree (registered, certified or common seed), hardiness, germination potential and physical purity of the seed. Markets are mostly in North America although some seed is exported overseas.

Leaf cutter bee management requires very specialized knowledge and equipment. Custom pollination by those specializing in bee management is an option in some areas. The value of bee cocoons is highly variable and very dependent on quality. Quality parameters include cocoon viability and freedom from chalkbrood.

Building and Machinery

The following table shows the replacement cost of buildings and machinery used in the production of alfalfa seed.

Buildings and Machinery Current Market Value Total Farm Size - 2,000 acres	
Bee Storage Building	\$ 35,000
Buildings	100,000
Power Machinery	270,000
Field Machinery	130,000
Other	20,000
Total	\$555,000



Price and Production Sensitivity

The following table shows the impact on Contribution Margin as a four year average resulting from changes in projected market returns and yield.

Price \$/lb	Yield lbs per acre			
	240	340	440	540
0.95	(5.66)	89.34	184.34	279.34
1.05	18.34	123.34	228.34	333.34
1.15	42.34	157.34	272.34	387.34
1.25	66.34	191.34	316.34	441.34

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

Contact: **KEN NICKEL, P.Ag.**
Provincial Grain and Oilseed Specialist
Fort St. John
ROGER KEAY, P.Ag.
Business Management Specialist
Kamloops
Prepared by: **SANDRA BURTON, P.Ag.**
Contractor

ALFALFA SEED

Target Yield - 340 lb/acre

Contribution Margin 1 Acre of Alfalfa Seed Peace River

Total Income				Prev. Yr	Year 1	Year 2	Year 3	Year 4	Average
	Yield	Price	Unit		0	550	450	350	340
Seed	340	\$1.15	lb		0	\$632.50	\$517.50	\$402.50	\$391.00
Direct Expenses									
	Quantity	Price	Unit						
<u>Seed</u>									
Certified	0.75	\$3.00	lb		\$2.25				\$0.56
<u>Fertilizers</u>									
12 - 51 - 0	100	0.22	lb		22.00				5.50
0 - 0 - 10 - 10	100	0.18	lb		17.64	17.64	17.64	17.64	17.64
<u>Pesticides</u>									
Edge	8.90	3.07	kg	27.32					6.83
Pursuit	0.085	224	L			19.06	19.06	19.06	14.30
Poast + Merge	0.445	35.96	L		16.00				4.00
Partner EC	0.405	15.56	L			6.30	6.30	6.30	4.73
Assure	0.600	40.00	L			24.00	24.00	24.00	18.00
Velpar	1.700	19.85	L		33.75				
Decis 5EC	0.100	145.00	L			19.50	19.50	19.50	14.63
Field Inspection					7.00	7.00	7.00	7.00	7.00
Cleaning/Bagging						55.00	45.00	35.00	33.75
Trucking						11.00	9.00	7.00	6.75
Fuel Costs				3.66	7.36	13.21	13.21	16.87	13.58
Machine R & M		2 - 6%		4.96	4.16	8.58	8.58	13.53	9.95
Building R & M		3%			3.26	3.26	3.26	3.26	3.26
Leafcutter Bees*									
Bee cocoons	20,000	0.01	cocoon			200.00			13.33
Nesting blocks	6	18	block			108.00			7.20
Field dis. tray	3	60	box			3.00			0.20
Domiciles	1	300	4 ac			75.00			5.00
Bee Management						55.30	55.30	55.30	41.48
Bee quality tests	4/farm	42.50	sample			0.21	0.21	0.21	0.16
Parasite control		9.00	strip			0.27	0.27	0.27	0.20
Incubating						7.50	7.50	7.50	5.63
Total Direct Expenses				\$35.94	\$113.41	\$633.83	\$235.83	\$232.45	\$233.66
Contribution Margin				(\$35.94)	(\$113.41)	(\$1.33)	\$281.67	\$170.05	\$157.34

*May be a capital item. Averaged over a 15 year period.

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 and Food.