



PLANNING FOR PROFIT



Province of British Columbia
Ministry of Agriculture, Fisheries and Food

Queen Rearing
Spring 1994

Agdex 616 - 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
Quantity	1.8 queens/nuc
Price	\$9.00/queen
Mating Success	75%
Grafting Success	80%

Mating and grafting success can be maximized by proper management. Increasing the number of rounds that can be run through a nucleus colony will improve profitability. Late summer and fall sales are possible.

NB. This budget assumes that half of the labour is hired and half is operator labour.

Marketing Alternatives

Queens can be sold to beekeepers in B.C. and other Canadian provinces where regulations permit. Check with provincial apiarists. The U.S. is a huge, relatively untapped market which has potential because of the Africanized bee problem in the South. Queen banking and overwintering in small nuclei will allow producers to ship queens almost any time of the year.

Cash Flow Timing

	J	F	M	A	M	J	J	A	S	O	N	D
%Inc						40	60					
%Exp			20	20	20	40						

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

Additional Investment*	\$38/hive
Direct Expense % of Income	30%-35%
Operator Labour	175-200 hours
*to Honey Operation, Contribution Margin Summer 1993	

The above indicators are provided for comparison purposes. They are set out as potential targets for queen rearing.

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QUEEN REARING

Target Yield - 1.8 queens/nuc

Contribution Margin Queen Production per Nucleus Colony

Total Income

	Yield	Price	Unit	Income
Queens	1.8	\$9.00	each	\$16.20

Direct Expenses

	Quantity	Price	Unit	Expense
Feed				
Sugar (nucs)	.25	\$.70	kg	\$.18
Sugar (builders)	.13	.70	kg	.09
Sugar (splits)	.04	.70	kg	.03
Pollen Patty	2	.25	each	.50
Cage Candy	1.8	.01	queen	.02

Feed Supplements

Fungusillin				.23
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Supplies & Services

Cell cups	2.25	.04	each	.08
Queen Cages	1.8	.16	each	.28
Cartons	1.8	.06	each	.10

Labour*

Set Up	.045	11.50	hour	.52
Three Rounds	.14	11.50	hour	1.66
Clean Up	.05	11.50	hour	.58

Envelopes, Label & Invoices				.01
Postage	1.8	.15	each	.27

Fuel, Oil & Lube				.10
Equipment R & M				.19
Total Direct Expenses				\$4.84

Contribution Margin **\$11.36**

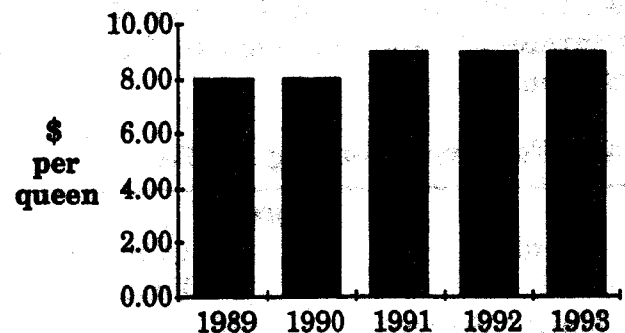
* includes UTC, CPP, etc.

Buildings and Machinery Replacement Cost* Total Farm Size - 1,000 Nucs

Grafting House	\$5,000
Nuc Boxes (250)	5,750
Frame Feeders (500)	3,000
Bear Fences	800
Hive Wintering Equipment	400
Total	\$14,950

* Equipment listed is in addition to that required for existing Honey Contribution Margin, Summer 1993.

Queen Prices



Contribution Margin - Sensitivity Analysis

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

PRICE \$/queen	Yield Queens per Nuc			
	1.2	1.5	1.8	2.4
9.00	6.88	9.12	11.36	15.48
9.50	7.48	9.87	12.26	16.68
10.00	8.08	10.62	13.16	17.88
10.50	8.68	11.37	14.06	19.08

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.