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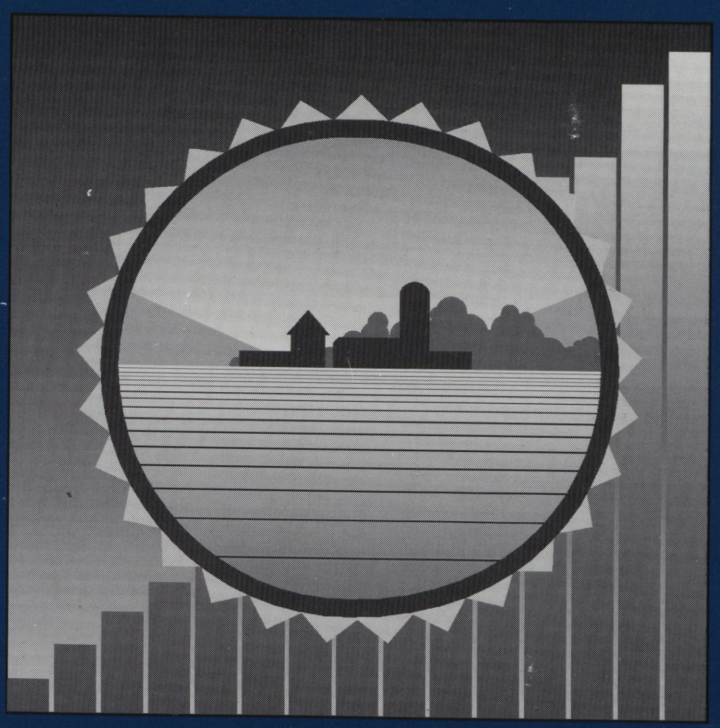

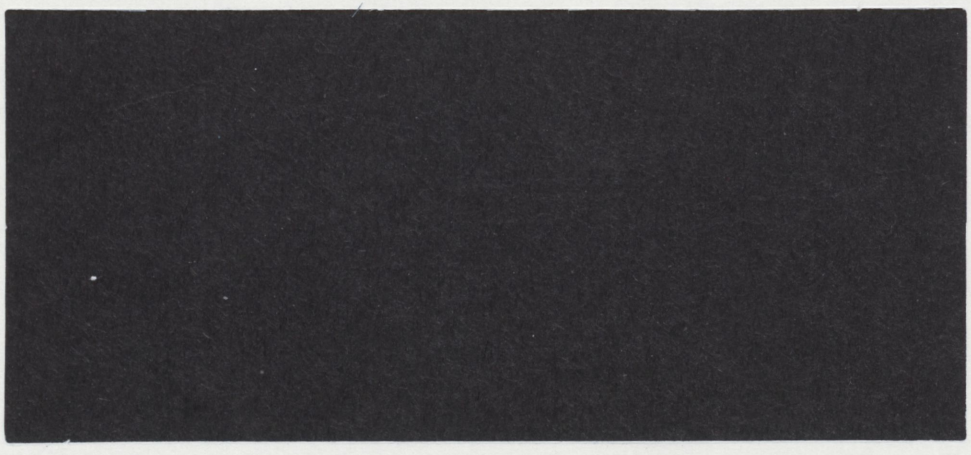

Working Paper

FRASER VALLEY COST OF PRODUCTION SURVEY OF FRESH VEGETABLES

(Working Paper 4/93)

Ference Weicker & Company

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This contract was undertaken by Ference Weicker & Company and was jointly managed by a Steering Committee composed of David Culver of Agriculture Canada and Lorne Owen of the British Columbia Ministry of Agriculture, Fisheries and Food.

Ference Weicker & Company

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I. INTRODUCTION

A. BACKGROUND

The Farm Level Data Base (FLDB) is currently being developed by Agriculture Canada in cooperation with Statistics Canada, provincial governments, universities and national marketing organizations to fill data gaps in Canada's current agriculture statistics system and provide decision-makers with improved farm level information on which to base policy and program decisions. It is intended that the FLDB will have 4 components, including:

- A whole farm database;
- A benchmark farm/cost of production database;
- A farm input price database;
- A standardization component to ensure greater data consistency and comparability.

The FLDB will be used to:

- Analyze the potential impacts on farm incomes and industry competitiveness of proposed policy and program changes;
- Design programs;
- Evaluate program impacts and effectiveness;
- Monitor the financial health of the industry on an on-going basis.

B. PURPOSE OF THE STUDY

The purpose of this study was to conduct a cost of production study of fresh vegetable farms in the Fraser Valley based upon the survey of 25 farms, for incorporation into the Benchmark Farm/Cost of Production Component of the FLDB. Some of the specific objectives of the study were as follows:

1. To utilize and modify the existing Farm Business Analysis Program for cow-calf farm businesses, and to prepare a survey questionnaire to obtain fresh vegetable production costs from producers in the Fraser Valley.

2. To conduct a survey of a maximum of 25 fresh vegetable farms in the Fraser Valley.

3. To provide a copy of the original data collected on hard copy and diskette.

4. To prepare summarized consolidated financial statements from the information received.

5. To write and present a summary of findings from the consolidated financial statements.

C. METHOD OF STUDY

The study was conducted in 4 phases. A detailed description of steps involved in each phase is provided in the following paragraphs:

1. Phase I

We first met with the Steering Committee, composed of David Culver of Agriculture Canada and Lorne Owen of the British Columbia Ministry of Agriculture, Fisheries and Food (BCMAFF), to clarify the scope and desired outputs of the study. In order to become more familiar with the characteristics and structure of the B.C. fresh vegetable sector, we then met with Wayne Odermatt, BCMAFF Regional Fresh Vegetable Specialist and conducted a detailed review of published statistics and surveys on the industry.

Based on the above steps and on a review of leading fresh vegetable crops in the Fraser Valley, it was decided that the seven crops to be analyzed for the purposes of this study would consist of the following:

- Lettuce (iceberg)
- Broccoli
- Green Cabbage
- Carrots (Topped)

- Onions
- Celery
- Potatoes

In order to provide greater consistency and comparability in the sample, the population to be sampled for the purposes of this study was then defined as:

- Farms which generated at least $150,000 in revenues from the 1991 crop season.

- Farms which generated at least 75% of their sales revenues from the sale of fresh vegetables. The purpose of this criteria was to reduce the likelihood that the operating results of a farm would be unduly affected by the nature of other (non-vegetable) operations.

- Farms which generated at least 50% of their revenues for the sale of the fresh vegetables (excluding potatoes) targeted in the survey. Potatoes farms which did not generate a significant proportion of their revenues from other types of fresh vegetables were not targeted because they are usually significantly different from other fresh vegetable farms, which would have limited the comparability of the data collected. In addition, the sample of farms to be surveyed was structured so as to ensure that cost of production data for a minimum of five targeted crops was obtained from at least three farms, in order to protect the confidentiality of the responses provided by respondents.

As part of this phase, we also spoke with Roger Keay, BCMAFF Farm Management Specialist, to familiarize ourselves with the Farm Business Analysis Program used by BCMAFF. With input from Agriculture Canada and BCMAFF, we then modified the template of the program to make it suitable for the collection and analysis of vegetable cost of production data, reviewed the questionnaires used by other provinces to collect vegetable cost of production data and prepared a study framework detailing the methodology to be used as well as a draft questionnaire for approval by the Steering Committee.

2. Phase II

In the second phase, the approved draft questionnaire was pre-tested on 2 vegetable farms in the Fraser Valley in order to ensure that it was easy to understand and would provide the information desired. Based on the comments received, a final questionnaire was developed, approved by the Steering Committee, and submitted to the Access to Information and Privacy (ATIP) Division of Statistics Canada to obtain a registration number.

3. Phase III

In the third phase, we met with Chuck Amor, General Manager of the B.C. Vegetable Marketing Commission, to develop a population list of Fraser Valley vegetable farms believed to meet the eligibility requirements. From this population list, a sample of 50 farms was selected randomly using a random number generator. A letter outlining the purpose, nature and benefits of the study was then mailed to these 50 farms, along with supporting letters from Agriculture Canada, BCMAFF and the B.C. Vegetable Marketing Commission. The mailing was followed up with a telephone call to each farm, to ascertain their willingness to participate in the study and ensure that they met the minimum requirements for the study. The farms were then surveyed in the order assigned by the random number generator until the required number of respondents was achieved. The information collected from the 25 farms which agreed to participate in the survey was then organized and entered in the template format as specified by the Steering Committee, and a number of simple and cross-tabulations were undertaken to prepare consolidated statements at the farm level and cost of production analyses on the selected crops.

4. Phase IV

In the fourth and final phase, after validation and computerization of original data, we then prepared summarized consolidated financial statements and wrote a summary of findings from the consolidated financial statements for circulation to the Steering Committee. This report represents the output of the 4th phase of the study. In addition, we have prepared and distributed customized reports to all farmers participating in the study, comparing the financial performance of their operation to the average for all 25 farms responding.

D. STRUCTURE OF REPORT

Our observations and findings are organized into 5 chapters. Chapter II provides a profile of the farms participating in the survey in terms of their major characteristics and of the overall representativity of the sample. Chapter III presents composite income statements and balance sheets for the 25 operations surveyed, while Chapter IV provides an analysis of various production, activity, profitability, liquidity and leverage ratios. The final chapter provides a detailed enterprise analysis for each of the 7 crops targeted in this study.

II. PROFILE OF RESPONDENT ORGANIZATIONS

This chapter provides a profile of the 25 farms responding to the survey, in terms of their major characteristics and the level of representativity of the sample vis-a-vis the total population of fresh vegetable farms in the Lower Mainland.

A. CHARACTERISTICS OF THE 25 FARMS SURVEYED

The major characteristics of the 25 farms surveyed in terms of ownership structure, business history, production acreage, revenues and owner's compensation are summarized in the following paragraphs.

1. Ownership Structure

As indicated in the table below, a large majority of the 25 farms surveyed were incorporated companies (72.0%) or sole proprietorships (20.0%). The relatively high proportion of incorporated companies in the sample may have been induced by the requirement that farms have sales of at least $150,000 to be included in the sample. Presumably, the greater the sales, the greater the likelihood that the farm is incorporated.

OWNERSHIP STRUCTURE OF FARMS SURVEYED

Ownership Structure	Number of Respondents	Percent
Incorporated Company	18	72.0%
Sole Proprietorship	5	20.0
Partnership	2	8.0
Total	25	100.0

For farms organized as corporations or partnerships, the average number of shareholders or partners was 2.45 (very often comprised of husband and wife) and ranged from a low of 1 to a high of 6.

2. Business History

As indicated below, the majority (60.0%) of the farms surveyed were started or purchased by their current owners after 1970. Only 16.0% of the farms were started or purchased by current owners before 1960.

BUSINESS HISTORY OF FARMS SURVEYED

When Started/Purchased by Current Owners	Number of Respondents	Percent
Before 1950	1	4.0%
1950 - 1959	3	12.0
1960 - 1969	6	24.0
1970 - 1979	6	24.0
1980 - 1989	9	36.0
Total	25	100.0
Average date: 1973		

The oldest farm in the sample was created or purchased in 1949 and the most recent was established or purchased in 1989. These results should, however, be taken with relative caution since many of the current owners took over previously existing farms from their parents or others.

3. Production Acreage

The total acreage of the 25 responding farms was 8,205 acres in 1991 (or an average of 328.2 acres per farm) and ranged from a low of 80 acres to a high of 1,500 acres. Of this total, however, only 2,521 acres (30.7%) were owned by the responding farms, while the remaining 5,685 acres (69.3%) were leased. For the land that was leased, the average annual rent per acre was about $204, and ranged from a low of $120 to a high of $250. It is believed, however, that these figures under-estimate the proportion of land actually owned or controlled by the respondents, since, in a number of instances, it was quite obvious that at least some of the land was leased from inter-related companies and/or individuals.

Total production acreage, at 7,850 acres, represented about 95.7% of the total acreage for the 25 respondents, or an average of 314 acres per farm. Many of the 25 farms surveyed tended to be fairly specialized, with 16 farms (64.0%) growing only one of the 7 crops selected for the purposes of this study.

Table 2.1 provides a breakdown of production acreage by crop in 1991. Overall, the 7 crops selected for the purposes of this study accounted for 3,466 acres or 44.2% of the total production acreage for the 25 farms. Leading crops included potatoes (1,669 acres or 21.3% of total production acreage), broccoli (1,124 acres and 14.3%), iceberg lettuce (180 acres and 2.3%), green cabbage and topped carrots (164 acres each and 2.1%), onions (116 acres and 1.5%) and celery (49 acres and 0.6%). Other major crops outside of the 7 selected for the purposes of this study included corn, berries, beans, peas and turnip.

4. Cash Revenues

Total cash revenues generated by the 25 responding farms were $15.2 million in 1991 (or an average of $609,994 per farm). It should be noted that, due to difficulties in generating responses from 25 farms matching all the sample selection criteria, 2 of the farms included in our sample actually did not meet the minimum revenue criterion of $150,000, with cash revenues of $66,000 and $121,000 respectively. Cash revenues per farm thus ranged from a low of $66,000 to a high of $2.8 million. As indicated below, 44.0% of the farms surveyed (84.0%) had cash revenues of $250,000 to $499,999 and an additional 40.0% of farms had cash revenues in excess of $500,000.

CASH REVENUES OF FARMS SURVEYED

Cash Revenues	Respondents Number	%	Cash Revenues Amount	%
Less than $250,000	4	16.0%	$636,324	4.2%
$250,000 - $500,000	11	44.0%	4,069,786	26.7
Over $500,000	10	40.0	10,543,740	69.1
Total	25	100.0	15,249,850	100.0
Average:			$609,994	

Vegetable crop sales, at $13.0 million, represented about 85.7% of total cash revenues for the 25 respondents, or an average of $521,146 per farm. Overall, as indicated in Table 2.1, the 7 crops selected for the purposes of this study accounted for $7.5 million or 49.0% of total cash revenues for the 25 farms. Leading crops included potatoes ($2.9 million or 18.8% of total cash revenues), broccoli ($1.9 million and 12.7%), topped carrots ($740,460 and 4.8%), green cabbage ($638,780 and 4.2%), iceberg lettuce ($598,140 and 3.9%), and onions ($546,480 and 3.6%). Celery only represented revenues of $164,540, or 1.1% of total cash revenues for the 25 farms.

5. Compensation

General Managers or owners of the 25 farms surveyed drew an average of $20,663 in total compensation in 1991, including about $11,901 in wages and salaries, and $8,762 in dividends. Of the 23 farmers providing a response, 6 (26.1%) did not draw any compensation whatsoever, while the compensation drawn by the 17 others ranged from a low of $7,000 to a high of $71,000. Not surprisingly, many respondents (82.6%) believed that their individual compensation was somewhat disproportionate with the amount of time and effort required. On average, respondents indicated that they would have to offer a compensation package of $50,500 or more to find and retain an individual to perform similar duties.

Similarly, the families of the general managers or owners of the 25 farms surveyed drew an average of $31,046 in total compensation in 1991, including about $26,346 in wages and salaries, and $4,700 in dividends. Of the 23 farmers providing a response, 6 (26.1%) indicated that family members did not draw any compensation whatsoever, while the compensation drawn by family members of the other 17 farmers ranged from a low of $6,000 to a high of $94,000. Here again, many respondents (86.7%) believed that family members were underpaid for the amount of time and effort put in. On average, it was estimated that the work for which family members were paid $31,046, would have cost a minimum of $96,194 if performed by others.

B. REPRESENTATIVITY OF THE SAMPLE

The representativity of the sample is discussed in the following paragraphs, in terms of level of industry coverage, level of coverage by crop, and possible bias introduced by the criteria used in the sample selection process.

1. Level of Industry Coverage

According to the Horticultural Statistics published by the B.C. Ministry of Agriculture, Fisheries and Food (BCMAFF), about 9,304 acres were devoted to the production of fresh vegetables in the Lower Mainland in 1990, and fresh vegetables sales that year were about $27.8 million (net of marketing agency handling charges). By comparison, the 25 farms in our sample had a total production acreage of 7,850 acres in 1991 (mostly devoted to the production of fresh vegetables), and total fresh vegetable sales for these 25 farms were about $13.0 million in 1991 (net of marketing agency handling charges). Assuming that sales and acreage remained fairly stable between 1990 and 1991, it can thus be estimated that the 25 farms in our sample represent between 42.8% (sales) and 84.4% (acreage) of the total population of fresh vegetable farms in the Lower Mainland.

2. Level of Coverage by Crop

One of the key objectives of the study was to ensure that cost of production data would be obtained for a minimum of 5 of the 7 targeted crops, from at least 3 farms for each crop. The study was more than successful in meeting this objective, since information was gathered on all 7 crops from a minimum of 4 farms for each crop, as indicated in Table 2.1.

The level of coverage varied substantially by crop, from a minimum of about 20% to a maximum of about 60% of the total population of fresh vegetable farms in the Lower Mainland growing each of these crops. The level of coverage was highest for broccoli (55.5% of total sales and 76.5% of total acreage for this crop in the Lower Mainland) and topped carrots (51.2% and 60.7%), followed by potatoes (40.4% and 53.0%) and green cabbage (39.3% and 39.0%). The level of coverage was comparatively lower for onions (26.3% and 38.4%), lettuce (23.4% and 35.3%) and celery (15.4% and 22.3%).

3. Potential Bias Introduced by the Sample Selection Criteria

While the sample selection procedures and criteria were designed to provide greater consistency and comparability of the data, it could be argued that the results may be slightly biased towards larger operations to the extent that the study was targeted at farms with revenues of $150,000 or more, and that these farms may enjoy some economies of scale not available to smaller operations. However, the potential for such a bias is believed to be minimal, for the following reasons:

- On average, respondents growing green cabbage, topped carrots, onions and celery devoted less than 25 acres to each of these crops. As a result, it appears highly unlikely that they benefitted from substantial economies of scale for these crops in terms of seeds, fertilizer, chemicals, etc.

- While respondents growing iceberg lettuce and potatoes devoted on average 36 acres and 93 acres to these crops respectively, statistics obtained from the B.C. Vegetable Marketing Commission suggest that these figures are reflective of the size of Lower Mainland farms specializing in these crops. For example, according to the 1991 grower intentions developed by the Commission, a total of 17 Lower Mainland growers intended to devote a total of 541 acres to iceberg lettuce in 1991, or an average of 31.8 acres per farm. Similarly, a total of about 70 Lower Mainland growers intended to devote a total of 4,788 acres to potatoes in 1991, or an average of 68.4 acres per farm.

- Given the limited number of broccoli growers in the Lower Mainland, the respondents in our sample, which represent over 75% of the total acreage for this crop in the Lower Mainland, are believed to be highly representative of this segment of the fresh vegetable industry.

III. COMPOSITE FINANCIAL STATEMENTS

Of the 25 farms surveyed for the purposes of this study, only 24 were able or willing to provide a complete set of financial statements. Based on the detailed information provided by these 24 farms, we developed a composite income statement and balance sheet for fresh vegetable farms in the Fraser Valley. A detailed description of these statements and of the methodology used in preparing them is provided in this chapter.

A. INCOME STATEMENT

In order to prepare a composite income statement for vegetable farms in the Fraser Valley, the income statements provided by the 24 respondents were adjusted and restated on an accrual basis in order to provide a more accurate depiction of revenues and expenses actually incurred during the 1991 crop season. As part of this process, the value of production for each farm was computed by adjusting cash revenues to reflect changes in inventory and accounts receivable. Similarly, accrued expenses were computed by adjusting cash expenses to reflect changes in inventory and in accounts payable.

Using this methodology, the average value of production per farm was estimated at $637,313 in 1991, yielding an average net income before tax of $18,179, or 2.9% of sales. As indicated in Table 3.1, leading sources of expenses included contract labour (32.6% of sales), fertilizer (8.1% of sales), land taxes (7.8%) and other labour and management salaries (7.1% of sales). A description of the major accounts of the composite income statement is provided below.

a. Value of Production (Net of Co-op Handling Charges)

For the purposes of this study, revenues were broken down into vegetable crop sales, other crop sales, livestock sales, government receipts, other farm income and non-farm income. As indicated in Table 3.1, the value of production averaged $637,313 per farm in 1991, and ranged from $68,500 to $2,944,680. Vegetable crop sales, which were recorded net of co-op handling charges (since none of the farmers surveyed were able to provide estimates of gross vegetable revenues), accounted for 85.2% of this total, or $542,963. Other leading sources of revenues included other crops ($41,309 or 6.5% of total revenues) and livestock (2.6%). Non-farm income such as interest on investments represented only 1.9% of total revenues.

b. Direct Expenses (Net of Co-op Handling Charges)

For the purposes of this study, direct expenses were defined as those expenses which are used directly by a farm enterprise and do not have to be allocated. As such, they include seeds and plants, fertilizer, pest control and chemicals, contract labour, irrigation water and power, fuel and lube, machinery repair and maintenance, cartons and packaging, washing and grading, as well as various other items such as marketing costs and livestock supplies and expenses. Co-op handling charges were not included in our analysis since none of the farmers were able to provide an estimate of their magnitude. With these considerations in mind, the total direct expenses for the 24 responding farms averaged $426,735 in 1991 (67.0% of total revenues), and ranged from $62,300 to $1,584,870, allowing for an average gross profit of $210,578 (33.0% of sales). Major sources of direct expenses are summarized below:

- Contract Labour

  For the purposes of this study, contract labour comprised all contract and hired labour. As indicated in Table 3.1, the 24 responding farms spent an average of $207,911 in wages and salaries and benefits for contract labour in 1991 (32.6% of total revenues and 48.7% of total direct expenses).

- Fertilizer

  As indicated in Table 3.1, fertilizers were the second largest direct expense, averaging $51,565 per farm (8.1% of total revenues and 12.1% of total direct expenses).

- Seeds and Plants

  Seeds and plants were the third largest source of direct expense and averaged a cost of $33,464 per farm (5.3% of total revenues and 7.8% of total direct expenses). These figures should, however, be taken with relative caution since a number of

farms (particularly potato farms) grow their own seeds, thereby reducing the amount of recorded seed and plant expense.

- Pest Control and Chemicals

The average farm spent $28,402 or a mere 4.5% of total revenues and 6.7% of total direct expenses on pest control and chemicals in 1991.

- Machinery Repair and Maintenance

The average farm spent $27,642 or 4.3% of total revenues and 6.4% of total direct expenses on machinery repair and maintenance.

- Cartons and Packaging

Cartons and packaging averaged a cost of $26,091 per farm or 4.1% of total revenues and 6.1% of total direct expenses. These figures should, however, be taken with relative caution since cartons and packaging are typically covered by the co-op handling charges which, as explained above, were not included in our analysis. As a result, the amounts shown here for cartons and packaging only reflect expenses incurred for sales to clients other than the co-op or marketing agencies.

- Fuel and Lube

Fuel and lube was a relatively minor source of direct expense and represented an average cost per farm of $19,577, equal to 3.1% of total revenues and 4.6% of total direct expenses.

- Other Direct Expenses

Other direct expenses included irrigation water and power, washing and grading, livestock supplies and expenses and other marketing and direct costs. Altogether,

they represented an average of $32,084 per farm, or 5.0% of total revenues and 7.5% of total direct expenses. Here again, these figures should be taken with relative caution since washing and grading is typically covered by the co-op handling charges which, as explained above, were not included in our analysis. As a result, the amounts shown here for washing and grading only reflect expenses incurred for sales to clients other than the co-op or marketing agencies. Furthermore, the cost of irrigation water and power is likely an under-estimate. Indeed, most of the farms surveyed are using tractor-mounted and/or powered type of irrigation equipment, thus showing very low expense amounts for irrigation water and power.

c. Indirect Expenses

For the purposes of this study, indirect expenses were defined as general and administrative expenses and included land taxes and rent, labour and management salaries, legal and accounting, insurance and licenses, utilities, interest and bank charges, miscellaneous, and depreciation. The average total indirect expense per farm was $192,400 in 1991 (30.2% of total revenues), and ranged from a low of $28,000 to a high of $646,700. Major sources of indirect expenses were as follows:

- Land Rent

  The average farm spent $49,845 on land rent in 1991, equal to 7.8% of total revenues and 31.2% of total indirect expenses. Since the average farm rented about 227 acres of land, the average rent per acre of land can thus be estimated at about $220, which is consistent with, albeit slightly higher than, the actual weighed average rent per acre presented in Chapter I ($204).

- Labour and Management Wages and Salaries

  This category included all wages and salaries, except those paid to contract and hired labour. As indicated in Table 3.1, labour and management wages and salaries averaged $45,093 per farm, or 7.1% of total revenues and 28.3% of total indirect expenses. It is to be noted that the amount of wages and salaries included in this

category does not necessarily provide an accurate measurement of actual management compensation since it ignores any dividends paid to the farmer and/or his family. As indicated in Chapter I, the 25 farmers in our sample and their family drew an average of $13,462 in dividends in addition to their wages and salaries reported on the income statement.

- Depreciation

Depreciation averaged $32,869 per farm in 1991, equal to 5.2% of total revenues and 17.1% of total indirect expenses.

- Interest

Total interest and bank charges averaged $17,070 per farm in 1991 (2.7% of total revenues and 10.7% of total indirect expenses), including $9,524 for operating interest and service charges and $7,546 for interest on term loans.

- Insurance and Licenses

The average farm spent $7,722 on insurance and licenses in 1991, equal to 1.2% of total revenues and 4.8% of total indirect expenses.

- Utilities

Utilities averaged $7,586 per farm in 1991, or 1.2% of total revenues and 4.8% of total indirect expenses.

- Land Taxes

Land taxes averaged $6,065 per farm in 1991, or 1.0% of total revenues and 3.8% of total indirect expenses.

- Other Indirect Expenses

Other direct expenses included legal and accounting and miscellaneous. Altogether, they represented an average of $26,149 per farm, or 4.1% of total revenues and 16.4% of total indirect expenses.

d. Net Income Before Tax

The average net income before tax for the 24 farms surveyed was $18,179 (2.9% of total revenues), and ranged from a loss of ($78,410) to a profit of $238,440. In other words, the average farm generated a net income of 2.9 cents per every dollar of revenue (value of production), while the remaining 97.1 cents were used to cover operating and fixed expenses. It should be noted that 44.4% of the farms surveyed experienced a loss in 1991 (average loss of $32,406, equal to 4.8% of total revenues for these farms). An additional 27.8% of farms generated a profit before tax of less than $50,000 in 1991 (average of $30,937 or 5.5% of total revenues), while the remaining 27.8% generated a net income before tax of $50,000 or more (average of $97,145 or 9.4% of total revenues). Based on the survey results, there was no obvious correlation between the size of the farm and the net income generated.

B. BALANCE SHEET

In order to prepare a composite balance sheet for vegetable farms in the Fraser Valley, balance sheets were obtained from the 18 incorporated farms in our sample and balance sheets for the remaining 7 farms were developed during the interview process. A description of the major accounts of the composite balance sheet is provided below.

1. Asset Structure

For the purposes of this study, assets were broken down into current and intermediate and fixed assets, and were entered at fair market value, which was defined as the price at which the asset could be sold, given a reasonable time period. As shown in Table 3.2, today's fresh vegetable farms require substantial capital investments, and total assets averaged about $1.96 million per farm. Land was by far the largest and most

valuable asset ($1.31 million or 67.2% of total assets), followed by tractors, trucks and other farm equipment ($276,657 and 14.0%) and houses and cars ($176,782 and 9.0%).

a. Current Assets

Current assets consist of cash on hand, accounts receivable and inventories. Total current assets for the 24 responding farms averaged $172,971 in 1991 (8.8% of total assets).

- Cash on Hand

  As indicated in Table 3.2, cash on hand averaged $61,184 per farm or 3.1% of total assets and 35.4% of total current assets.

- Accounts Receivable

  Accounts receivable (mostly composed of accounts receivable from the trade) averaged $75,295 per farm and accounted for an average of 3.8% of total assets and 43.5% of total current assets.

- Inventory

  As indicated in Table 3.2, total inventories (mostly composed of crop, seeds and fertilizer inventory) for the 24 responding farms averaged $36,492 in 1991, or 1.9% of total assets and 21.1% of total current assets. As a rule, these inventory figures should be used with relative caution due to the fact that many farms did not value inventories on their balance sheets, and were only able to provide a best estimate.

b. Intermediate and Fixed Assets

Intermediate and fixed assets consist of general farm equipment, tractors and trucks, houses and cars and investments in land. Total intermediate and fixed assets for the 24 responding farms averaged $1.78 million in 1991, or 91.2% of total assets (at market value).

- Land

As indicated in Figure 3.2, the market value of land averaged $1.31 million per farm or 67.2% of total assets and 73.7% of total intermediate and fixed assets. Based on the information supplied by the respondents, these figures translate into an average market value of $12,313 per acre of land owned by the 25 farms.

- Houses and Cars

The market value of houses and cars averaged $176,782 per farm or 9.0% of total assets and 9.9% of total intermediate and fixed assets.

- Tractors and Trucks

As indicated in Table 3.2, the market value of tractors and trucks averaged $147,532 per farm or 7.5% of total assets and 8.3% of total intermediate and fixed assets.

- General Farm Equipment

General farm equipment consist primarily of general tillage equipment, planters, sprayers and harvesters and irrigation equipment. General farm equipment for the 24 responding farms averaged $129,125 in 1991, or 6.6% of total assets and 7.2% of total intermediate and fixed assets.

2. Financial Structure

The following paragraphs provide a description of the financial structure of the 25 fresh vegetable farms surveyed and of the manner in which their assets are financed. For the purposes of this study, liabilities were broken down into current and intermediate and long-term liabilities. As shown in Table 3.2, about $379,769 of the average farm's $1.96 million in total assets (19.0%) was financed by debt capital in 1991, while the remaining 81.0% was financed by the owner's equity. In other words, the sector had a leverage factor (ratio of total debt to total assets) of 19.0%.

a. Current Liabilities

Current liabilities as defined for the purposes of this study included accounts payable and working capital or operating loans. Current liabilities averaged $78,826 per farm in 1991, or 4.0% of total assets and 20.8% of total liabilities. Accounts payable and operating loans averaged $38,381 and $40,444 per farm respectively.

b. Intermediate and Long-Term Liabilities

Intermediate and long-term liabilities consist of equipment loans, land loans and mortgages, ALDA loans and shareholder's loans. For the purposes of this study, loans payable consist of intermediate and long-term debt minus the current maturities of such debts, which we have included in "current liabilities". Intermediate and long-term liabilities averaged $300,943 per farm in 1991, or 15.4% of total assets and 79.2% of total liabilities.

- Land Loans/Mortgages

  As indicated in Figure 3.2, land loans/mortgages averaged $158,488 per farm or 8.1% of total assets and 41.7% of total liabilities.

- Shareholder's Loans

  Shareholder's loans averaged $124,333 per farm or 6.4% of total assets and 32.7.% of total liabilities. Although every effort was made to identify non-interest bearing shareholder's loans (which were entered as equity), these results may still slightly over-estimate actual "real" shareholder's loans, i.e. those with a stated schedule of interest and repayment.

c. Equity

Equity is defined as total assets minus total liabilities, or the actual value of the owner's share of the assets, as opposed to lenders' claims. Total equity for the 24 responding firms averaged $1.58

million, or 80.6% of total assets. In other words, owners would be left with an average of $1.58 million if their assets were sold at fair market value and all the debt was repaid with the proceeds.

IV. RATIO ANALYSIS

Ratios are useful tools of financial statement analysis because they conveniently summarize data in a form that is more easily understood, interpreted and compared. For the purposes of this study, we will distinguish between 4 different types of ratios:

- Production and activity ratios;
- Profitability ratios;
- Liquidity ratios;
- Leverage ratios.

It should however be noted that a ratio is not a meaningful number in itself and only becomes really useful by comparison. For example, the ratios for the fresh vegetable farms in the Fraser Valley will become a lot more meaningful when they can be computed for several years and compared over time to see if the sector is improving or deteriorating. Similarly, the ratios for the fresh vegetable farms in the Fraser Valley could also be compared to those of other regions in the same industry. Unfortunately, there is currently very little information available on the financial structure and performance of fresh vegetable farms in other parts of North America.

A. PRODUCTION AND ACTIVITY RATIOS

Production and activity ratios provide an indication of how effectively a firm is utilizing its resources. For our purposes, we have measured activity using production yields per acre, the fixed asset turnover and total asset turnover ratios as described below:

1. Production Yields

Based on the responses provided by the 25 farms surveyed, average production yields per acre were developed for each of the 7 crops targeted in this study, as follows:

- Iceberg Lettuce: 697 cases per acre
- Broccoli: 3.0 tonnes per acre

- Green Cabbage: 18.3 tonnes per acre
- Topped Carrots: 27.7 tonnes per acre
- Onions: 21.0 tonnes per acre
- Celery: 708 cases per acre
- Potatoes: 13.7 tonnes per acre

These production yields are relatively consistent with those found in a number of recently published studies and statistics, such as the "Planning for Profit" guidelines published by the B.C. Ministry of Agriculture, Fisheries and Food (BCMAFF).

2. Fixed Asset Turnover

For the purposes of this study, the fixed asset turnover ratio was calculated by dividing total sales by the investment in intermediate and fixed assets. The ratio shows how effectively the operation is using its fixed assets. However, it should be noted that the ratio will vary depending upon the extent to which the operation leases, rather than owns, its fixed assets (especially land). In addition, the ratio should be interpreted with relative caution since all intermediate and fixed assets were entered at fair market value, which can be extremely subjective. With these considerations in mind, the average fixed asset turnover ratio for the 25 farms in our sample was 0.36 in 1991. In other words, it would take on average about 2.78 years of revenues based on current sales to equal the value of the fixed assets used by each farm.

3. Total Asset Turnover

For the purposes of this study, the total asset turnover ratio was calculated by dividing total sales by the market value of all assets. The ratio shows how effectively the operation is using its assets. As was the case for the fixed asset turnover ratio, this ratio will vary depending upon the extent to which the operation leases, rather than owns, its fixed assets, and should be interpreted with relative caution since assets were entered at fair market value. With these considerations in mind, the total asset turnover ratio for the sector was 0.33 in 1991. In other words, it would take on average about 3.03 years of revenues based on current sales to equal the value of all the assets used by each farm.

B. PROFITABILITY RATIOS

Profitability ratios provide an indication of the relative financial returns of an operation. For our purposes, we have measured profitability using the contribution margin, return on sales (before and after interest), return on total assets, and return on equity ratios as described below:

1. Contribution Margin

The contribution margin is calculated by dividing sales less direct expenses by sales. This ratio provides an indication of how effectively the operation is employing its factors of production including contract labour, seeds and plants, fertilizer and chemicals, and machinery. It also provides an indication of how sensitive net income is to variations in the level of sales. As indicated in Table 4.1, the contribution margin averaged 33.0% for the 25 farms surveyed in the 1991 crop season, which is believed to be fairly high given the labour-intensive nature of the fresh vegetable industry.

2. Return on Sales (before and after interest)

Return on sales is calculated by dividing net income before tax (either before or after interest) by total sales. The ratio reflects both the contribution margin of the operation and its ability to control fixed and indirect expenses. As indicated in Table 4.1, the return on sales before interest averaged 5.5% for the sector in 1991, while the return on sales after interest averaged 2.9%.

3. Return on Total Assets

Return on assets is calculated by dividing net income (before interest and taxes) by total assets. The ratio expresses the pre-tax return on total assets and measures the effectiveness of the operation in employing its resources. As indicated in Table 4.1, the return on assets for the 25 farms in our sample averaged 1.8% in 1991.

4. Return on Equity

Return on equity is calculated by dividing net income before tax by total equity. This ratio expresses the rate of return on the capital employed. While it can serve as an indicator of financial performance, it should be used carefully. For example, a high return, normally associated with effective management, could indicate an undercapitalized firm or a policy of not retaining profits in the business. As indicated in Table 4.1, the return on equity for the 25 farms in our sample averaged 1.2% in 1991, which is relatively low in consideration of the fact that farmers and their families earned an average of only $20,663 and $31,046 respectively in 1991, including $8,762 and $4,700 respectively in dividends, for work that would have cost about $50,000 and $95,000 respectively if performed by others with no vested interest in the farm. Based on this information, actual pre-tax return on equity after payment of dividends to the farmers and their families for work performed averages only 0.3% or $4,717 per farm.

C. LIQUIDITY RATIOS

Liquidity ratios provide an indication of an operation's ability to meet its financial obligations. For our purposes, we have measured liquidity using the current ratio, which is computed by dividing current assets by current liabilities. Current assets normally include cash, accounts receivable, and inventory. Current liabilities consist of accounts payable, short-term notes, current maturities of long-term debt, accrued income taxes, and other accrued expenses (most notably, wages). For our purposes, we have defined current liabilities as accounts payable and working capital loans.

As indicated in Table 4.1, the current ratio for all respondents was 2.19 in 1991. A ratio greater than 2 is usually considered as a positive indication of a firm's liquidity and financial position.

D. LEVERAGE RATIOS

Leverage ratios measure the funds supplied by owners to the funds provided by the firm's creditors (such as banks and suppliers). For our purposes, we have measured leverage using the debt to equity ratio, the times interest earned ratio, the debt per acre ratio, the total asset per acre ratio and the depreciable assets per acre ratio, as described below.

1. Debt-Equity Ratio

The debt to equity ratio is calculated by dividing the total liabilities of the operation by the total equity. This ratio provides an indication of the percentage of total funds provided by creditors relative to that provided by the owners, as well as an indication of a firm's ability to take on additional debt. As indicated in Table 4.1, the debt to equity ratio for the sector was 24.1% in 1991, which would tend to suggest that farms in our sample are not highly leveraged and have a relatively good flexibility for future borrowing.

2. Debt per Production Acre

The debt per production acre ratio is calculated by dividing the total liabilities of the operation by the total number of production acres. This ratio provides a measure of the risk of the farm related to the earning capacity of an acre. The higher the debt per acre, the more difficult it will be to continue meeting the obligations of the farm. As indicated in Table 4.1, total debt averaged $1,209 per production acre for the 25 farms surveyed.

3. Total Assets per Production Acre

The total assets per production acre ratio is calculated by dividing the total assets (less house and cars) of the operation by the total number of production acres. This ratio provides a measure of the amount of money invested per acre. As indicated in Table 4.1, total assets per production acre averaged $5,671 for the 25 farms surveyed.

4. Depreciable Assets per Production Acre

The depreciable assets per production acre ratio is calculated by dividing the depreciable assets (i.e. total assets minus land) of the operation by the total number of production acres. This provides a measure of the amount of money invested per acre in assets which are losing value and will need replacement at some point in time in the future. The higher the value, the more depreciation expense which will have to be covered per acre. As indicated in Table 4.1, total depreciable assets per production acre averaged $1,495 for the 25 farms surveyed.

5. Times Interest Earned

The times interest earned ratio is computed by dividing net income before interest and taxes by the interest expense. This ratio is a measure of an operation's ability to meet interest payments. As indicated in Table 4.1, the times interest earned ratio for the 25 farms surveyed was 2.06 in 1991, which is not surprising given their low debt ratio, and which confirms their ability to both meet interest payments and take on additional debt.

V. ENTERPRISE ANALYSIS

Based on the production and financial information provided by the 25 respondents, we developed detailed enterprise analyses for each of the 7 crops targeted for the purposes of this study. In particular, we worked with respondents to obtain a breakdown of revenues and direct costs by crop, and the allocated direct costs were then analyzed to develop a composite cost of production and gross margin analysis for each crop (indirect expenses were not allocated). As was the case for the composite statements presented in Chapter III, all revenues were recorded net of co-op handling charges (since none of the farmers surveyed were able to provide estimates of gross vegetable revenues), and co-op handling charges were thus not included in our analysis of direct expenses. As a result, the amounts shown for cartons and packaging, and washing and grading (which are typically covered by the co-op handling charges) only reflect expenses incurred for sales to clients other than the co-op or marketing agencies. Each crop was also analyzed in terms of total production and production sold, as well as in terms of inputs such as seeds, fertilizer and contract labour. This chapter summarizes our major findings with respect to each of the 7 crops targeted in the study.

A. ICEBERG LETTUCE

The results of our enterprise analysis as they pertain to iceberg lettuce are summarized in the following paragraphs.

1. Production Analysis

As indicated in Table 5.1, the 5 farms in our sample growing iceberg lettuce devoted a total of 180 acres to this crop in 1991 (average of 36.0 acres per farm), and iceberg lettuce production acreage per farm ranged from a low of 5 acres to a high of 67 acres. Total production for the 5 farms was 125,393 cases, which represented an average of 697 cases per acre. Total production sold averaged 662 cases per acre, or 95.0% of total production.

2. Enterprise Analysis

Total value of production per acre for iceberg lettuce averaged $3,323 (net of co-op charges), allowing for an average gross margin per acre of $1,195 (or 36.0% of the value of production). As indicated in Table 5.1,

contract labour was by far the largest source of direct expenses ($1,082 per acre or 32.6% of sales), followed by seeds and plants ($269 and 8.1%), cartons and packaging ($235 and 7.1%) and fertilizer ($187 and 5.6%).

3. Input Analysis

As indicated in Table 5.1, the farms in our sample used an average of about 80,000 seeds and 442 kilograms of fertilizer per production acre of iceberg lettuce. Contract labour represented a total of 250 hours per acre, at an average hourly rate of $6.77.

B. BROCCOLI

The results of our enterprise analysis as they pertain to broccoli are summarized in the following paragraphs.

1. Production Analysis

As indicated in Table 5.2, the 4 farms in our sample growing broccoli devoted a total of 1,124 acres to this crop in 1991 (an average of 281.0 acres per farm), and broccoli production acreage per farm ranged from a low of 74 acres to a high of 600 acres. Total production for the 4 farms was 3,321 tonnes, or an average of 3.0 tonnes per acre. Spoilage was again minimal and total production sold averaged 2.8 tonnes per acre, or 95.5% of total production.

2. Enterprise Analysis

Based on the responses provided by the 4 farms in our sample, the average value of production for broccoli was $1,818 per acre (net of co-op charges), allowing for an average gross margin of about $349 per acre (or 19.2% of the value of production). As indicated in Table 5.2, leading sources of direct expenses included contract labour ($796 per acre or 43.8% of sales), cartons and packaging ($201 and 11.1%), fertilizer ($137 and 7.5%), seeds and plants ($99 and 5.4%), and pest control and chemicals ($90 and 4.9%).

3. Input Analysis

As indicated in Table 5.2, the 4 farms in our sample used an average of about 0.13 kilograms of seeds and 281 kilograms of fertilizer per production acre devoted to broccoli. Contract labour represented a total of 132 hours per acre, at an average of $6.00 per hour.

C. GREEN CABBAGE

The results of our enterprise analysis as they pertain to green cabbage are summarized in the following paragraphs.

1. Production Analysis

As indicated in Table 5.3, the total production acreage devoted by the 8 farms in our sample to green cabbage was 164 acres in 1991 (or an average of 20.5 acres per farm), and ranged from a low of 2 acres to a high of 70 acres. Total production for the 8 farms was 3,006 tonnes, or an average of 18.3 tonnes per acre. Total production sold averaged 15.7 tonnes per acre and represented about 85.8% of total production.

2. Enterprise Analysis

Total average value of production per acre was $3,934 (net of co-op charges), and average gross margin per acre was $1,303 per acre (or 33.1% of the value of production). Contract labour was by far the largest single direct expense ($1,661 per acre or 42.2% of sales), followed by seeds and plants ($311 and 7.9%), fertilizer ($220 and 5.6%), pest control and chemicals ($156 and 4.0%), and fuel and lube ($123 and 3.1%).

3. Input Analysis

As indicated in Table 5.3, the farms in our sample used an average of about 21,000 plants and 487 kilograms of fertilizer per production acre devoted to green cabbage. Contract labour represented a total of 255 hours per acre, at an average of rate of $6.49 per hour.

D. TOPPED CARROTS

The results of our enterprise analysis as they pertain to topped carrots are summarized in the following paragraphs.

1. Production Analysis

As indicated in Table 5.4, the 7 farms growing topped carrots in our sample devoted a total of 164 acres to this crop in 1991 (or an average of 23.4 acres per farm), and topped carrots production acreage per farm ranged from a low of 12 acres to a high of 42 acres. Total production averaged 27.7 tonnes per acre. However, spoilage was quite significant and total production sold averaged only 20.9 tonnes per acre, or 75.4% of total production.

2. Enterprise Analysis

Total average value of production was $4,579 per acre (net of co-op charges), allowing for a relatively high gross margin per acre of $3,033 (or 66.2% of the value of production). Major direct expenses included contract labour ($428 per acre or 9.4% of sales), fertilizer ($229 and 5.0%), seeds and plants ($210 and 4.6%), and pest control and chemicals ($208 and 4.5%).

3. Input Analysis

Farms in our sample used an average of about 637,000 seeds and 476 kilograms of fertilizer per production acre devoted to topped carrots. Contract labour represented a total of 44 hours per acre, at an average of hourly wage rate of $8.29.

E. ONIONS

The results of our enterprise analysis as they pertain to onions are summarized in the following paragraphs.

1. Production Analysis

The 6 farms growing onions in our sample devoted a total of 116 acres to this crop in 1991 (or an average of 19.3 acres per farm), and onion production acreage per farm ranged from a low of 13 acres to a high of 36 acres. Total production averaged 21.0 tonnes per acre, and total production sold averaged 18.0 tonnes per acre (about 86.0% of total production).

2. Enterprise Analysis

Total average value of production per acre was $4,839 per acre (net of co-op charges), and the average gross margin per acre was relatively high, at $3,042 (62.9% of the value of production). As indicated in Table 5.5, leading sources of direct expenses included contract labour ($505 per acre or 10.4% of sales), pest control and chemicals ($333 and 6.9%), fertilizer ($274 and 5.7%), and seeds and plants ($229 and 4.7%).

3. Input Analysis

Farms in our sample used an average of about 345,000 seeds and 436 kilograms of fertilizer per production acre devoted to onions. Contract labour represented a total of 63 hours per acre, at an average of $6.37 per hour.

F. CELERY

The results of our enterprise analysis as they pertain to celery are summarized in the following paragraphs.

1. Production Analysis

As indicated in Table 5.6, the total production acreage devoted by the 5 farms in our sample to celery was 49 acres in 1991 (or an average of 9.8 acres per farm), and ranged from a low of 5 acres to a high of 18 acres. Total production for 4 of the 5 farms in our sample was 28,309 cases, or an average of 708 cases per acre. Due to high levels of spoilage, total production sold averaged only 450 cases per acre, or 63.6% of total production.

2. Enterprise Analysis

Based on the responses provided by 4 of the 5 farms in our sample, the average value of production for celery was about $3,355 per acre (net of co-op charges), allowing for a relatively modest gross margin of $674 per acre (20.1% of the value of production). Contract labour was by far the largest single direct expense ($1,286 or 38.3% of sales), followed by seeds and plants ($546 and 16.3%), fertilizer ($304 and 9.1%) and pest control and chemicals ($251 and 7.5%).

3. Input Analysis

Farms in our sample used an average of about 28,000 plants and 500 kilograms of fertilizer per production acre devoted to celery. None of the farmers surveyed were able to provide an estimate of the number of hours of contract labour per production acre. However, based on a cost of $1,286 per acre and an hourly wage rate of about $6.50, contract labour per acre can be estimated at about 198 hours per acre.

G. POTATOES

The results of our enterprise analysis as they pertain to potatoes are summarized in the following paragraphs.

1. Production Analysis

As indicated in Table 5.7, the 18 farms in our sample growing potatoes dedicated a total of 1,669 acres to this crop in 1991 (or an average of 92.7 acres per farm), and potato production acreage per farm ranged from a low of 2 acres to a high of 200 acres. Total production averaged 13.7 tonnes per acre. Crop spoilage was minimal and total production sold averaged 12.4 tonnes per acre, or 90.3% of total production.

2. Enterprise Analysis

Based on the responses provided by 17 of the 18 farms in our sample, the average value of production for potatoes was about $1,789 per acre (net of co-op charges), and the average gross margin per acre was relatively high at $693 (38.7% of the value of production). Leading direct expenses included contract labour

($385 per acre or 21.5% of sales), fertilizer ($198 and 11.1%), seeds and plants ($142 and 7.9%), machinery repair and maintenance ($133 and 7.4%) and pest control and chemicals ($122 and 6.8%).

3. Input Analysis

As indicated in Table 5.7, the farms in our sample used an average of about 711 kilograms of seeds and 442 kilograms of fertilizer per production acre devoted to potatoes. Contract labour represented a total of 53 hours per acre, at an average of hourly wage rate of $7.47.

Table 2.1

REPRESENTATIVITY OF SAMPLE

	TOTAL LOWER MAINLAND		SAMPLE			SAMPLE REPRESENTATIVITY	
Fresh Vegetable Production	Number of Acres (1990)	Value of Production (1990)	Number of Farms	Number of Acres (1991)	Value of Production (1991)	Number of Acres (%)	Value of Production (%)
Lettuce (Iceberg)	510	$2,557,000	5	180	$598,140	35.3%	23.4%
Broccoli (1)	1,470	3,480,000	4	1,124	1,932,160	76.5%	55.5%
Green Cabbage	420	1,624,000	8	164	638,780	39.0%	39.3%
Topped Carrots	270	1,446,000	7	164	740,460	60.7%	51.2%
Onions	302	2,075,000	6	116	546,480	38.4%	26.3%
Celery	220	1,071,000	5	49	164,540	22.3%	15.4%
Potatoes	3,150	7,087,000	18	1,669	2,864,000	53.0%	40.4%
Subtotal Selected Crops (2)	6,342	19,340,000	25	3,466	7,484,560	54.7%	38.7%

Notes:
(1) Includes Processed Sales & Acreage
(2) Includes Sales & Acreage of Broccoli for Processing

Table 3.1

COMPOSITE INCOME STATEMENT (VALUE OF PRODUCTION), 1991 CROP SEASON

	Number of Farms Responding	AVERAGE PER FARM				
		Dollars	Dollars	Dollars	Dollars	% of Value of Production
Revenue:		*Cash Sales*	*Inventory Change*	*Account Receivables*	*Value of Production*	
Vegetable Crop Sales	24	522,509	2,284	18,170	542,963	85.2%
Other Crop Sales	24	39,114	4	2,192	41,310	6.5%
Livestock Sales	24	16,408	----	23	16,431	2.6%
Government Receipts	24	3,241	----	2,950	6,191	1.0%
Other Farm Income	24	16,313	----	1,696	18,009	2.8%
Non-Farm Income	25	12,409	----	0	12,409	1.9%
		609,994	2,288	25,031	637,313	100.0%
Direct Expenses:		*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Seeds & Plants	24	33,005	129	330	33,464	5.3%
Fertilizer	24	49,903	152	1,510	51,565	8.1%
Pest Control & Chemicals	24	28,039	(39)	402	28,402	4.5%
Contract Labour	24	199,712	----	8,199	207,911	32.6%
Irrigation Water & Power	24	1,073	----	(25)	1,048	0.2%
Fuel & Lube	24	18,660	83	834	19,577	3.1%
Machinery Repair & Maintenance	24	26,379	----	1,263	27,642	4.3%
Cartons & Packaging	24	28,082	(165)	(1,826)	26,091	4.1%
Washing & Grading	24	0	----	0	0	0.0%
Other Marketing Costs	24	2,619	----	(393)	2,226	0.3%
Livestock Supplies & Expenses	24	10,560	(2,083)	(7)	8,470	1.3%
Other Direct Expenses	24	19,615	155	569	20,339	3.2%
		417,647	(1,768)	10,856	426,735	67.0%
Gross Margin		192,347	4,056	14,175	210,578	33.0%
Indirect Expenses:						
Land Taxes	24	6,065	----	----	6,065	1.0%
Land Rent	24	49,845	----	----	49,845	7.8%
Labour	24	45,093	----	----	45,093	7.1%
Legal & Accounting	24	4,754	----	----	4,754	0.7%
Insurance & Licenses	24	7,722	----	----	7,722	1.2%
Utilities	24	7,586	----	----	7,586	1.2%
Operating Interest & Service Charges	24	9,525	----	----	9,525	1.5%
Interest on Term Loans	24	7,546	----	----	7,546	1.2%
Miscellaneous	24	21,395	----	----	21,395	3.4%
Depreciation	18	32,869	----	----	32,869	5.2%
		192,400	----	----	192,400	30.2%
Net Income Before Tax		(53)	4,056	14,175	18,179	2.9%

Table 3.2

COMPOSITE BALANCE SHEET, 1991 CROP SEASON

	Number of Farms Responding	AVERAGE PER FARM Dollars	% of Assets
Current Assets:			
Cash	24	61,184	3.1%
Accounts Receivable	24	75,295	3.8%
Inventory	24	36,492	1.9%
		172,971	8.8%
Intermediate & Fixed Assets (Market Value):			
General Farm Equipment	21	129,125	6.6%
Tractors & Trucks	22	147,532	7.5%
Houses & Cars	17	176,782	9.0%
Land	22	1,315,000	67.2%
Other	24	16,032	0.8%
		1,784,471	91.2%
Total Assets		1,957,442	100.0%
Current Liabilities:			
Accounts Payable	24	38,381	2.0%
Operating Loan	25	40,444	2.1%
		78,826	4.0%
Intermediate & Long Term Liabilities:			
Equipment Loan	25	13,015	0.7%
Land Loan/Mortgage	25	158,488	8.1%
ALDA	25	3,839	0.2%
Shareholder's Loan	25	124,333	6.4%
Other	25	1,268	0.1%
		300,943	15.4%
Owner's Equity		1,577,673	80.6%
Total Liabilities & Owner's Equity		1,957,442	100.0%

Table 4.1

RATIO ANALYSIS, 1991 CROP SEASON

	Number of Farms Responding	AVERAGE PER FARM	
			Ratio
Production & Activity Ratios:			
Production Yields per Acre:			
Lettuce (Cases)	5	Yield	696.6
Broccoli (Tonnes)	4	Yield	3.0
Green Cabbage (Tonnes)	8	Yield	18.3
Carrots (Tonnes)	6	Yield	27.7
Onions (Tonnes)	5	Yield	21.0
Celery (Cases)	4	Yield	707.7
Potatoes (Tonnes)	17	Yield	13.7
Fixed Asset Turnover			0.36
Total Asset Turnover			0.33
Profitability Ratios:			
Contribution Margin			33.0%
Return on Sales Before Interest			5.5%
Return on Sales After Interest			2.9%
Return on Total Assets (Before Interest)			1.8%
Return on Equity			1.2%
Liquidity Ratios:			
Current Ratio			2.19
Leverage Ratios:			
Debt Equity Ratio			24.1%
Debt per Production Acre			$1,209
Total Assets (Less House & Car) per Production Acre			$5,671
Depreciable Assets per Production Acre			$1,495
Times Interest Earned			2.06

Table 5.1

ENTERPRISE ANALYSIS – ICEBERG LETTUCE, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	5	180	----
Total Production (Cases)	5	125,393	696.6
Production Sold (Cases)	5	119,163	662.0
Production Sold as % of Total		95.0%	----

Enterprise Analysis	Number of Farms Responding	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	% of of Value of Production
Revenue:						
Value of Production	4	3,323	0	0	3,323	100.0%
		Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Direct Expenses:						
Seeds & Plants	4	270	(2)	0	269	8.1%
Fertilizer	4	187	0	0	187	5.6%
Pest Control & Chemicals	4	131	(2)	0	129	3.9%
Contract Labour	4	1,085	----	(3)	1,082	32.6%
Irrigation Water & Power	4	2	----	0	2	0.1%
Fuel & Lube	4	99	(4)	(8)	87	2.6%
Machinery Repair & Maintenance	4	118	----	(1)	117	3.5%
Cartons & Packaging	3	257	(3)	(19)	236	7.1%
Washing & Grading	3	0	----	0	0	0.0%
Other Marketing Costs	4	2	----	0	2	0.1%
Other Direct Expenses	4	21	0	0	21	0.6%
		2,172	(11)	(30)	2,131	64.1%
Gross Margin		1,152	11	30	1,192	35.9%

Input Analysis	Number of Farms	Amount
Number of Seeds per Acre	4	79,667
Fertilizer per Acre (kg)	3	441.9
Contract Labour (Hours per Acre)	1	250
Contract Labour ($ per Hour)	2	$6.77

Table 5.2

ENTERPRISE ANALYSIS – BROCCOLI, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	4	1,124	----
Total Production (Tonnes)	4	3,321	3.0
Production Sold (Tonnes)	4	3,171	2.8
Production Sold as % of Total		95.5%	----

Enterprise Analysis	Number of Farms Responding	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	% of of Value of Production
Revenue:						
Value of Production	4	1,719	0	98	1,816	100.0%
Direct Expenses:		*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Seeds & Plants	4	95	1	3	99	5.4%
Fertilizer	4	136	1	(0)	137	7.5%
Pest Control & Chemicals	4	90	0	0	90	4.9%
Contract Labour	4	766	----	29	796	43.8%
Irrigation Water & Power	4	0	----	0	0	0.0%
Fuel & Lube	4	54	1	7	61	3.4%
Machinery Repair & Maintenance	4	79	----	5	84	4.6%
Cartons & Packaging	4	216	0	(15)	201	11.1%
Washing & Grading	4	0	----	0	0	0.0%
Other Marketing Costs	4	0	----	0	0	0.0%
Other Direct Expenses	4	0	0	0	0	0.0%
		1,436	3	29	1,468	80.8%
Gross Margin		283	(3)	69	349	19.2%

Input Analysis	Number of Farms	Amount
Number of Seeds per Acre	4	0.13
Fertilizer per Acre (kg)	4	280.8
Contract Labour (Hours per Acre)	4	132
Contract Labour ($ per Hour)	4	$6.00

Table 5.3

ENTERPRISE ANALYSIS – GREEN CABBAGE, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	8	164	----
Total Production (Tonnes)	8	3,006	18.3
Production Sold (Tonnes)	8	2,578	15.7
Production Sold as % of Total		85.8%	----

Enterprise Analysis	Number of Farms Responding	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	% of of Value of Production
Revenue:						
Value of Production	7	3,895	0	38	3,934	100.0%
Direct Expenses:		*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Seeds & Plants	7	311	0	0	311	7.9%
Fertilizer	7	220	0	0	220	5.6%
Pest Control & Chemicals	7	156	0	0	156	4.0%
Contract Labour	7	1,678	----	(17)	1,661	42.2%
Irrigation Water & Power	7	0	----	0	0	0.0%
Fuel & Lube	7	123	0	0	123	3.1%
Machinery Repair & Maintenance	7	103	----	(2)	101	2.6%
Cartons & Packaging	7	0	0	0	0	0.0%
Washing & Grading	7	0	----	0	0	0.0%
Other Marketing Costs	7	1	----	0	1	0.0%
Other Direct Expenses	7	58	0	0	58	1.5%
Total Direct Expenses		2,649	0	(18)	2,631	66.9%
Gross Margin		1,246	0	57	1,303	33.1%

Input Analysis	Number of Farms	Amount
Number of Plants per Acre	6	20,894
Fertilizer per Acre (kg)	7	486.7
Contract Labour (Hours per Acre)	6	255
Contract Labour ($ per Hour)	7	$6.49

Table 5.4

ENTERPRISE ANALYSIS – TOPPED CARROTS, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	7	164	----
Total Production (Tonnes)	6	3,373	27.7
Production Sold (Tonnes)	6	2,544	20.9
Production Sold as % of Total		75.4%	----

Enterprise Analysis	Number of Farms Responding	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	% of of Value of Production
Revenue:						
Value of Production	6	4,515	36	28	4,579	100.0%
Direct Expenses:		*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Seeds & Plants	6	210	(0)	0	210	4.6%
Fertilizer	5	229	0	0	229	5.0%
Pest Control & Chemicals	5	208	(0)	0	208	4.5%
Contract Labour	5	448	----	(19)	428	9.4%
Irrigation Water & Power	5	17	----	(1)	16	0.3%
Fuel & Lube	5	117	(1)	(2)	113	2.5%
Machinery Repair & Maintenance	5	148	----	(2)	146	3.2%
Cartons & Packaging	5	79	0	0	79	1.7%
Washing & Grading	6	0	----	0	0	0.0%
Other Marketing Costs	5	34	----	(5)	29	0.6%
Other Direct Expenses	5	87	0	0	87	1.9%
Total Direct Expenses		1,578	(2)	(30)	1,547	33.8%
Gross Margin		2,937	38	58	3,033	66.2%

Input Analysis	Number of Farms	Amount
Number of Seeds per Acre	6	636,669
Fertilizer per Acre (kg)	5	475.6
Contract Labour (Hours per Acre)	4	44
Contract Labour ($ per Hour)	5	$8.29

Table 5.5

ENTERPRISE ANALYSIS – ONIONS, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	6	116	----
Total Production (Tonnes)	5	1,667	21.0
Production Sold (Tonnes)	5	1,434	18.0
Production Sold as % of Total		86.0%	----

Enterprise Analysis	Number of Farms Responding	Dollars	Dollars	Dollars	Dollars	% of of Value of Production
		Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*	
Revenue:						
Value of Production	5	4,711	92	37	4,839	100.0%
		Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Direct Expenses:						
Seeds & Plants	5	0	0	230	230	4.7%
Fertilizer	2	274	0	0	274	5.7%
Pest Control & Chemicals	4	336	(3)	0	333	6.9%
Contract Labour	4	506	----	(1)	505	10.4%
Irrigation Water & Power	4	42	----	0	42	0.9%
Fuel & Lube	4	155	(3)	(4)	148	3.1%
Machinery Repair & Maintenance	4	174	----	(1)	174	3.6%
Cartons & Packaging	5	0	0	0	0	0.0%
Washing & Grading	5	0	----	0	0	0.0%
Other Marketing Costs	4	9	----	0	9	0.2%
Other Direct Expenses	4	83	0	0	83	1.7%
Total Direct Expenses		1,580	(6)	224	1,798	37.2%
Gross Margin		3,131	98	(187)	3,041	62.8%

Input Analysis	Number of Farms	Amount
Number of Seeds per Acre	5	344,506
Fertilizer per Acre (kg)	5	436.0
Contract Labour (Hours per Acre)	3	63
Contract Labour ($ per Hour)	4	$6.37

Table 5.6

ENTERPRISE ANALYSIS – CELERY, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	5	49	----
Total Production (Cases)	4	28,309	707.7
Production Sold (Cases)	4	18,000	450.0
Production Sold as % of Total		63.6%	----

Enterprise Analysis	Number of Farms Responding	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	% of of Value of Production
Revenue:						
Value of Production	4	3,358	0	(3)	3,355	100.0%
Direct Expenses:		*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Seeds & Plants	4	548	(2)	0	546	16.3%
Fertilizer	3	304	0	0	304	9.1%
Pest Control & Chemicals	3	259	(8)	0	251	7.5%
Contract Labour	3	1,292	----	(6)	1,286	38.3%
Irrigation Water & Power	2	99	----	(1)	98	2.9%
Fuel & Lube	3	103	(2)	(4)	96	2.9%
Machinery Repair & Maintenance	3	82	----	(1)	81	2.4%
Cartons & Packaging	4	0	0	0	0	0.0%
Washing & Grading	4	0	----	0	0	0.0%
Other Marketing Costs	3	3	----	0	3	0.1%
Other Direct Expenses	3	14	0	0	14	0.4%
Total Direct Expenses		2,704	(12)	(11)	2,680	79.9%
Gross Margin		654	12	8	674	20.1%

Input Analysis	Number of Farms	Amount
Number of Plants per Acre	3	27,761
Fertilizer per Acre (kg)	3	500.3
Contract Labour (Hours per Acre)	0	0
Contract Labour ($ per Hour)	0	$0.00

Table 5.7

ENTERPRISE ANALYSIS – POTATOES, 1991 CROP SEASON

Production Analysis	Number of Farms Responding	AVERAGE PER ACRE Total	Average per Acre
Acres in Production	18	1,669	----
Total Production (Tonnes)	17	21,184	13.7
Production Sold (Tonnes)	17	19,122	12.4
Production Sold as % of Total		90.3%	----

Enterprise Analysis	Number of Farms Responding	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	% of of Value of Production
Revenue:						
Value of Production	17	1,730	19	39	1,789	100.0%
Direct Expenses:		*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*	
Seeds & Plants	17	141	(0)	1	142	7.9%
Fertilizer	15	189	0	9	198	11.1%
Pest Control & Chemicals	16	118	(0)	4	122	6.8%
Contract Labour	16	375	----	11	385	21.5%
Irrigation Water & Power	16	1	----	(0)	1	0.1%
Fuel & Lube	16	87	(0)	(1)	86	4.8%
Machinery Repair & Maintenance	16	127	----	6	133	7.4%
Cartons & Packaging	16	7	0	0	7	0.4%
Washing & Grading	17	0	----	0	0	0.0%
Other Marketing Costs	16	15	----	(3)	12	0.7%
Other Direct Expenses	16	10	0	0	10	0.5%
Total Direct Expenses		1,070	(0)	26	1,096	61.3%
Gross Margin		660	20	13	693	38.7%

Input Analysis	Number of Farms	Amount
Seeds per Acre (kg)	16	711.5
Fertilizer per Acre (kg)	16	442.1
Contract Labour (Hours per Acre)	15	53
Contract Labour ($ per Hour)	15	$7.47

APPENDIX I

SAMPLE CUSTOMIZED REPORT

ENTERPRISE ANALYSIS – POTATOES, 1991 CROP SEASON

Prepared For:

Bob

Production Analysis	YOUR FARM Total	YOUR FARM Average per Acre	ALL FARMS Number of Farms Responding	ALL FARMS Total	ALL FARMS Average per Acre
Acres in Production	116.0	----	18	1,669	----
Total Production (Tonnes)	1,930.0	16.6	17	21,184	13.7
Production Sold (Tonnes)	1,608.0	13.9	17	19,122	12.4
Production Sold as % of Total	83.3%	----		90.3%	----

Enterprise Analysis	Dollars	Dollars	Dollars	Dollars	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
	Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*					
Revenue:									
Value of Production	305,716	0	(19,486)	286,230	2,468	100.0%	17	1,789	100.0%
	Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Direct Expenses:									
Seeds & Plants	10,865	0	2,136	13,001	112	4.5%	17	142	7.9%
Fertilizer	21,323	0	1,286	22,609	195	7.9%	15	198	11.1%
Pest Control & Chemicals	16,126	0	0	16,126	139	5.6%	16	122	6.8%
Contract Labour	105,475	----	16,416	121,891	1,051	42.6%	16	385	21.5%
Irrigation Water & Power	0	----	0	0	0	0.0%	16	1	0.1%
Fuel & Lube	10,000	0	0	10,000	86	3.5%	16	86	4.8%
Machinery Repair & Maintenance	19,730	----	3,071	22,801	197	8.0%	16	133	7.4%
Cartons & Packaging	0	0	0	0	0	0.0%	16	7	0.4%
Washing & Grading	0	----	0	0	0	0.0%	17	0	0.0%
Other Marketing Costs	0	----	0	0	0	0.0%	16	12	0.7%
Other Direct Expenses	0	0	0	0	0	0.0%	16	10	0.5%
Total Direct Expenses	183,519	0	22,908	206,427	1,780	72.1%		1,096	61.3%
Gross Margin				79,803	688	27.9%		693	38.7%

Input Analysis	Amount	Number of Farms	Average
Seeds per Acre (kg)	1,182.0	16	711.5
Fertilizer per Acre (kg)	36.6	16	442.1
Contract Labour (Hours per Acre)	150	15	53
Contract Labour ($ per Hour)	$7.00	15	$7.47

ACREAGE ANALYSIS, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM		ALL FARMS		
	Number of Acres	%	Number of Farms Responding	Average per Farm	%
Total Acreage:					
Leased	126.0	43.3%	25	227.4	69.3%
Owned	165.0	56.7%	25	100.8	30.7%
	291.0	100.0%		328.2	100.0%
Production Acreage:					
Lettuce (Iceberg)	0.0	0.0%	25	7.2	2.3%
Broccoli	0.0	0.0%	25	45.0	14.3%
Green Cabbage	0.0	0.0%	25	6.6	2.1%
Carrots (Topped)	0.0	0.0%	25	6.5	2.1%
Onions	0.0	0.0%	25	4.6	1.5%
Celery	0.0	0.0%	25	2.0	0.6%
Potatoes	116.0	41.4%	25	66.8	21.3%
Other	164.0	58.6%	25	175.4	55.9%
	280.0	100.0%		314.0	100.0%

CASH INCOME STATEMENT ANALYSIS, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM		ALL FARMS		
	Dollars	% of Revenue	Number of Farms Responding	Average per Farm	% of Revenue
Cash Income:					
Vegetable Crop Sales	455,012	85.1%	25	522,509	85.7%
Other Crop Sales	0	0.0%	25	39,114	6.4%
Livestock Sales	0	0.0%	25	16,408	2.7%
Government Receipts	26,155	4.9%	25	3,241	0.5%
Other Farm Income	0	0.0%	25	16,313	2.7%
Non– Farm Income	53,488	10.0%	25	12,409	2.0%
	534,655	100.0%		609,994	100.0%
Direct Cash Expenses:					
Seeds & Plants	10,865	2.0%	24	33,005	5.4%
Fertilizer	35,420	6.6%	24	49,903	8.2%
Pest Control & Chemicals	23,189	4.3%	24	28,039	4.6%
Contract Labour	140,634	26.3%	25	199,712	32.7%
Irrigation Water & Power	0	0.0%	24	1,073	0.2%
Fuel & Lube	13,425	2.5%	24	18,660	3.1%
Machinery Repair & Maintenance	24,661	4.6%	24	26,379	4.3%
Cartons & Packaging	0	0.0%	24	28,082	4.6%
Washing & Grading	0	0.0%	24	0	0.0%
Other Marketing Costs	0	0.0%	24	2,619	0.4%
Livestock Supplies & Expenses	0	0.0%	24	10,561	1.7%
Other Direct Expenses	0	0.0%	24	19,615	3.2%
	248,194	46.4%		417,646	68.5%
Gross Margin	286,461	53.6%		192,348	31.5%
Indirect Cash Expenses:					
Land Taxes	11,944	2.2%	24	6,065	1.0%
Land Rent	18,910	3.5%	24	49,845	8.2%
Labour	42,385	7.9%	24	45,093	7.4%
Legal & Accounting	5,578	1.0%	24	4,754	0.8%
Insurance & Licenses	4,404	0.8%	24	7,722	1.3%
Utilities	1,688	0.3%	24	7,586	1.2%
Operating Interest & Service Charges	135	0.0%	24	9,524	1.6%
Interest on Term Loans	0	0.0%	24	7,546	1.2%
Miscellaneous	32,525	6.1%	24	21,395	3.5%
	117,569	22.0%		159,531	26.2%
Return Over Cash Expenses	168,892	31.6%		32,817	5.4%

REVISED INCOME STATEMENT ANALYSIS (VALUE OF PRODUCTION), 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM					ALL FARMS		
	Dollars	Dollars	Dollars	Dollars	% of Value of Production	Number of Farms Responding	Average per Farm	% of Value of Production
Revenue:	*Cash Sales*	*Inventory Change*	*Account Receivables*	*Value of Production*				
Vegetable Crop Sales	455,012	0	103	455,115	88.3%	24	542,963	85.2%
Other Crop Sales	0	0	0	0	0.0%	24	41,309	6.5%
Livestock Sales	0	----	0	0	0.0%	24	16,431	2.6%
Government Receipts	26,155	----	(19,549)	6,606	1.3%	24	6,192	1.0%
Other Farm Income	0	----	0	0	0.0%	24	18,009	2.8%
Non-Farm Income	53,488	----	0	53,488	10.4%	25	12,409	1.9%
	534,655	0	(19,446)	515,209	100.0%		637,313	100.0%
Direct Expenses:	*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*				
Seeds & Plants	10,865	0	2,136	13,001	2.5%	24	33,464	5.3%
Fertilizer	35,420	0	2,136	37,556	7.3%	24	51,565	8.1%
Pest Control & Chemicals	23,189	0	0	23,189	4.5%	24	28,402	4.5%
Contract Labour	140,634	----	21,888	162,522	31.5%	24	207,911	32.6%
Irrigation Water & Power	0	----	0	0	0.0%	24	1,048	0.2%
Fuel & Lube	13,425	0	0	13,425	2.6%	24	19,577	3.1%
Machinery Repair & Maintenance	24,661	----	3,838	28,499	5.5%	24	27,642	4.3%
Cartons & Packaging	0	0	0	0	0.0%	24	26,091	4.1%
Washing & Grading	0	----	0	0	0.0%	24	0	0.0%
Other Marketing Costs	0	----	0	0	0.0%	24	2,226	0.3%
Livestock Supplies & Expenses	0	0	0	0	0.0%	24	8,471	1.3%
Other Direct Expenses	0	0	0	0	0.0%	24	20,339	3.2%
	248,194	0	29,998	278,192	54.0%		426,735	67.0%
Gross Margin				237,017	46.0%		210,578	33.0%
Indirect Expenses:								
Land Taxes	11,944	----	----	11,944	2.3%	24	6,065	1.0%
Land Rent	18,910	----	----	18,910	3.7%	24	49,845	7.8%
Labour	42,385	----	----	42,385	8.2%	24	45,093	7.1%
Legal & Accounting	5,578	----	----	5,578	1.1%	24	4,754	0.7%
Insurance & Licenses	4,404	----	----	4,404	0.9%	24	7,722	1.2%
Utilities	1,688	----	----	1,688	0.3%	24	7,586	1.2%
Operating Interest & Service Charges	135	----	----	135	0.0%	24	9,524	1.5%
Interest on Term Loans	0	----	----	0	0.0%	24	7,546	1.2%
Miscellaneous	32,525	----	----	32,525	6.3%	24	21,395	3.4%
	117,569	----	----	117,569	22.8%		159,531	25.0%
Return Over Expenses				119,448	23.2%		51,047	8.0%

BALANCE SHEET ANALYSIS, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM		ALL FARMS		
	Dollars	% of Assets	Number of Farms Responding	Average per Farm	% of Assets
Current Assets:					
Cash	370,647	11.5%	24	61,184	3.1%
Accounts Receivable	954	0.0%	24	75,295	3.8%
Inventory	4,000	0.1%	24	36,492	1.9%
	375,601	11.6%		172,971	8.8%
Intermediate & Fixed Assets (Market Value):					
General Farm Equipment	91,705	2.8%	21	129,125	6.6%
Tractors & Trucks	133,800	4.1%	22	147,532	7.5%
Houses & Cars	1,800	0.1%	17	176,782	9.0%
Land	2,500,000	77.4%	22	1,315,000	67.2%
Other	128,947	4.0%	24	16,032	0.8%
	2,856,252	88.4%		1,784,471	91.2%
Total Assets	3,231,853	100.0%		1,957,442	100.0%
Current Liabilities:					
Accounts Payable	56,380	1.7%	24	38,381	2.0%
Operating Loan	0	0.0%	25	40,444	2.1%
	56,380	1.7%		78,826	4.0%
Intermediate & Long Term Liabilities:					
Equipment Loan	0	0.0%	25	13,015	0.7%
Land Loan/Mortgage	0	0.0%	25	158,488	8.1%
ALDA	0	0.0%	25	3,839	0.2%
Shareholder's Loan	83,969	2.6%	25	124,333	6.4%
Other	0	0.0%	25	1,268	0.1%
	83,969	2.6%		300,943	15.4%
Owner's Equity	3,091,504	95.7%		1,577,673	80.6%
Total Liabilities & Owner's Equity	3,231,853	100.0%		1,957,442	100.0%

RATIO ANALYSIS, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM	ALL FARMS	
	Ratio	Number of Farms Responding	Average Ratio
Production & Activity Ratios:			
Production Yields per Acre:			
Lettuce (Cases)	----	5	696.6
Broccoli (Tonnes)	----	4	3.0
Green Cabbage (Tonnes)	----	8	18.3
Carrots (Tonnes)	----	6	27.7
Onions (Tonnes)	----	5	21.0
Celery (Cases)	----	4	707.7
Potatoes (Tonnes)	16.6	17	13.7
Fixed Asset Turnover	0.18		0.36
Total Asset Turnover	0.16		0.33
Profitability Ratios:			
Contribution Margin	46.0%		33.0%
Return on Sales Before Interest	23.2%		10.7%
Return on Sales After Interest	23.2%		8.0%
Return on Total Assets (Before Interest)	3.7%		3.5%
Return on Equity	3.9%		3.2%
Liquidity Ratios:			
Current Ratio	6.66		2.19
Leverage Ratios:			
Debt Equity Ratio	4.5%		24.1%
Debt per Production Acre	$501		$1,209
Total Assets (Less House & Car) per Production Acre	$11,536		$5,671
Depreciable Assets per Production Acre	$1,272		$1,495
Times Interest Earned	885.80		3.99

ENTERPRISE ANALYSIS – ICEBERG LETTUCE, 1991 CROP SEASON

Prepared For:

Bob

Production Analysis	YOUR FARM Total	YOUR FARM Average per Acre	ALL FARMS Number of Farms Responding	ALL FARMS Total	ALL FARMS Average per Acre
Acres in Production	0.0	----	5	180	----
Total Production (Cases)	0.0	----	5	125,393	696.6
Production Sold (Cases)	0.0	----	5	119,163	662.0
Production Sold as % of Total	NA	----		95.0%	----

Enterprise Analysis	Dollars *Cash Sales*	Dollars *Inventory Change*	Dollars *Account Receivables*	Dollars *Value of Production*	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
Revenue:									
Value of Production	0	0	0	0	NA	100.0%	4	3,323	100.0%
Direct Expenses:	*Cash Expenses*	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Seeds & Plants	0	0	0	0	NA	NA	4	269	8.1%
Fertilizer	0	0	0	0	NA	NA	4	187	5.6%
Pest Control & Chemicals	0	0	0	0	NA	NA	4	129	3.9%
Contract Labour	0	----	0	0	NA	NA	4	1,082	32.6%
Irrigation Water & Power	0	----	0	0	NA	NA	4	0	0.0%
Fuel & Lube	0	0	0	0	NA	NA	4	87	2.6%
Machinery Repair & Maintenance	0	----	0	0	NA	NA	4	117	3.5%
Cartons & Packaging	0	0	0	0	NA	NA	3	235	7.1%
Washing & Grading	0	----	0	0	NA	NA	3	0	0.0%
Other Marketing Costs	0	----	0	0	NA	NA	4	2	0.1%
Other Direct Expenses	0	0	0	0	NA	NA	4	21	0.6%
	0	0	0	0	NA	NA		2,128	64.0%
Gross Margin				0	NA	NA		1,195	36.0%

Input Analysis	Amount	Number of Farms	Average
Number of Seeds per Acre	0	4	79,667
Fertilizer per Acre (kg)	0.0	3	441.9
Contract Labour (Hours per Acre)	0	1	250
Contract Labour ($ per Hour)	$0.00	2	$6.77

ENTERPRISE ANALYSIS – BROCCOLI, 1991 CROP SEASON

Prepared For:

Bob

Production Analysis	YOUR FARM Total	YOUR FARM Average per Acre	ALL FARMS Number of Farms Responding	ALL FARMS Total	ALL FARMS Average per Acre
Acres in Production	0.0	----	4	1,124	----
Total Production (Tonnes)	0.0	----	4	3,321	3.0
Production Sold (Tonnes)	0.0	----	4	3,171	2.8
Production Sold as % of Total	NA	----		95.5%	----

Enterprise Analysis	Dollars	Dollars	Dollars	Dollars	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
	Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*					
Revenue:									
Value of Production	0	0	0	0	NA	100.0%	4	1,816	100.0%
	Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Direct Expenses:									
Seeds & Plants	0	0	0	0	NA	NA	4	99	5.4%
Fertilizer	0	0	0	0	NA	NA	4	137	7.5%
Pest Control & Chemicals	0	0	0	0	NA	NA	4	90	4.9%
Contract Labour	0	----	0	0	NA	NA	4	796	43.8%
Irrigation Water & Power	0	----	0	0	NA	NA	4	0	0.0%
Fuel & Lube	0	0	0	0	NA	NA	4	61	3.4%
Machinery Repair & Maintenance	0	----	0	0	NA	NA	4	84	4.6%
Cartons & Packaging	0	0	0	0	NA	NA	4	201	11.1%
Washing & Grading	0	----	0	0	NA	NA	4	0	0.0%
Other Marketing Costs	0	----	0	0	NA	NA	4	0	0.0%
Other Direct Expenses	0	0	0	0	NA	NA	4	0	0.0%
	0	0	0	0	NA	NA		1,468	80.8%
Gross Margin				0	NA	NA		349	19.2%

Input Analysis	Amount	Number of Farms	Average
Number of Seeds per Acre	0.00	4	0.13
Fertilizer per Acre (kg)	0.0	4	280.8
Contract Labour (Hours per Acre)	0	4	132
Contract Labour ($ per Hour)	$0.00	4	$6.00

ENTERPRISE ANALYSIS – GREEN CABBAGE, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM						ALL FARMS		
Production Analysis				Total	Average per Acre		Number of Farms Responding	Total	Average per Acre
Acres in Production				0.0	----		8	164	----
Total Production (Tonnes)				0.0	----		8	3,006	18.3
Production Sold (Tonnes)				0.0	----		8	2,578	15.7
Production Sold as % of Total				NA	----			85.8%	----

Enterprise Analysis	Dollars	Dollars	Dollars	Dollars	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
	Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*					
Revenue:									
Value of Production	0	0	0	0	NA	100.0%	7	3,934	100.0%
	Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Direct Expenses:									
Seeds & Plants	0	0	0	0	NA	NA	7	311	7.9%
Fertilizer	0	0	0	0	NA	NA	7	220	5.6%
Pest Control & Chemicals	0	0	0	0	NA	NA	7	156	4.0%
Contract Labour	0	----	0	0	NA	NA	7	1,661	42.2%
Irrigation Water & Power	0	----	0	0	NA	NA	7	0	0.0%
Fuel & Lube	0	0	0	0	NA	NA	7	123	3.1%
Machinery Repair & Maintenance	0	----	0	0	NA	NA	7	101	2.6%
Cartons & Packaging	0	0	0	0	NA	NA	7	0	0.0%
Washing & Grading	0	----	0	0	NA	NA	7	0	0.0%
Other Marketing Costs	0	----	0	0	NA	NA	7	1	0.0%
Other Direct Expenses	0	0	0	0	NA	NA	7	58	1.5%
Total Direct Expenses	0	0	0	0	NA	NA		2,631	66.9%
Gross Margin				0	NA	NA		1,303	33.1%

Input Analysis	Amount	Number of Farms	Average
Number of Plants per Acre	0	6	20,894
Fertilizer per Acre (kg)	0.0	7	486.7
Contract Labour (Hours per Acre)	0	6	255
Contract Labour ($ per Hour)	$0.00	7	$6.49

ENTERPRISE ANALYSIS – TOPPED CARROTS, 1991 CROP SEASON

Prepared For:

Bob

Production Analysis	YOUR FARM Total	YOUR FARM Average per Acre	ALL FARMS Number of Farms Responding	ALL FARMS Total	ALL FARMS Average per Acre
Acres in Production	0.0	----	7	164	----
Total Production (Tonnes)	0.0	----	6	3,373	27.7
Production Sold (Tonnes)	0.0	----	6	2,544	20.9
Production Sold as % of Total	NA	----		75.4%	----

Enterprise Analysis	Dollars	Dollars	Dollars	Dollars	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
	Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*					
Revenue:									
Value of Production	0	0	0	0	NA	100.0%	6	4,579	100.0%
	Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Direct Expenses:									
Seeds & Plants	0	0	0	0	NA	NA	6	210	4.6%
Fertilizer	0	0	0	0	NA	NA	5	229	5.0%
Pest Control & Chemicals	0	0	0	0	NA	NA	5	208	4.5%
Contract Labour	0	----	0	0	NA	NA	5	428	9.4%
Irrigation Water & Power	0	----	0	0	NA	NA	5	16	0.3%
Fuel & Lube	0	0	0	0	NA	NA	5	113	2.5%
Machinery Repair & Maintenance	0	----	0	0	NA	NA	5	146	3.2%
Cartons & Packaging	0	0	0	0	NA	NA	5	79	1.7%
Washing & Grading	0	----	0	0	NA	NA	6	0	0.0%
Other Marketing Costs	0	----	0	0	NA	NA	5	29	0.6%
Other Direct Expenses	0	0	0	0	NA	NA	5	87	1.9%
Total Direct Expenses	0	0	0	0	NA	NA		1,547	33.8%
Gross Margin				0	NA	NA		3,033	66.2%

Input Analysis	Amount	Number of Farms	Average
Number of Seeds per Acre	0	6	636,669
Fertilizer per Acre (kg)	0.0	5	475.6
Contract Labour (Hours per Acre)	0	4	44
Contract Labour ($ per Hour)	$0.00	5	$8.29

ENTERPRISE ANALYSIS – ONIONS, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM			ALL FARMS		
Production Analysis	Total	Average per Acre		Number of Farms Responding	Total	Average per Acre
Acres in Production	0.0	----		6	116	----
Total Production (Tonnes)	0.0	----		5	1,667	21.0
Production Sold (Tonnes)	0.0	----		5	1,434	18.0
Production Sold as % of Total	NA	----			86.0%	----

Enterprise Analysis	Dollars	Dollars	Dollars	Dollars	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
	Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*					
Revenue:									
Value of Production	0	0	0	0	NA	100.0%	5	4,839	100.0%
	Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Direct Expenses:									
Seeds & Plants	0	0	0	0	NA	NA	5	229	4.7%
Fertilizer	0	0	0	0	NA	NA	2	274	5.7%
Pest Control & Chemicals	0	0	0	0	NA	NA	4	333	6.9%
Contract Labour	0	----	0	0	NA	NA	4	505	10.4%
Irrigation Water & Power	0	----	0	0	NA	NA	4	42	0.9%
Fuel & Lube	0	0	0	0	NA	NA	4	148	3.1%
Machinery Repair & Maintenance	0	----	0	0	NA	NA	4	174	3.6%
Cartons & Packaging	0	0	0	0	NA	NA	5	0	0.0%
Washing & Grading	0	----	0	0	NA	NA	5	0	0.0%
Other Marketing Costs	0	----	0	0	NA	NA	4	9	0.2%
Other Direct Expenses	0	0	0	0	NA	NA	4	83	1.7%
Total Direct Expenses	0	0	0	0	NA	NA		1,798	37.1%
Gross Margin				0	NA	NA		3,042	62.9%

Input Analysis	Amount	Number of Farms	Average
Number of Seeds per Acre	0	5	344,506
Fertilizer per Acre (kg)	0.0	5	436.0
Contract Labour (Hours per Acre)	0	3	63
Contract Labour ($ per Hour)	$0.00	4	$6.37

ENTERPRISE ANALYSIS – CELERY, 1991 CROP SEASON

Prepared For:

Bob

	YOUR FARM		ALL FARMS		
Production Analysis	Total	Average per Acre	Number of Farms Responding	Total	Average per Acre
Acres in Production	0.0	----	5	49	----
Total Production (Cases)	0.0	----	4	28,309	707.7
Production Sold (Cases)	0.0	----	4	18,000	450.0
Production Sold as % of Total	NA	----		63.6%	----

Enterprise Analysis	Dollars	Dollars	Dollars	Dollars	Average per Acre	% of of Value of Production	Number of Farms Responding	Average per Acre	% of Value of Production
	Cash Sales	*Inventory Change*	*Account Receivables*	*Value of Production*					
Revenue:									
Value of Production	0	0	0	0	NA	100.0%	4	3,355	100.0%
	Cash Expenses	*Inventory Change*	*Account Payable*	*Accrued Expense*					
Direct Expenses:									
Seeds & Plants	0	0	0	0	NA	NA	4	546	16.3%
Fertilizer	0	0	0	0	NA	NA	3	304	9.1%
Pest Control & Chemicals	0	0	0	0	NA	NA	3	251	7.5%
Contract Labour	0	----	0	0	NA	NA	3	1,286	38.3%
Irrigation Water & Power	0	----	0	0	NA	NA	2	98	2.9%
Fuel & Lube	0	0	0	0	NA	NA	3	96	2.9%
Machinery Repair & Maintenance	0	----	0	0	NA	NA	3	81	2.4%
Cartons & Packaging	0	0	0	0	NA	NA	4	0	0.0%
Washing & Grading	0	----	0	0	NA	NA	4	0	0.0%
Other Marketing Costs	0	----	0	0	NA	NA	3	3	0.1%
Other Direct Expenses	0	0	0	0	NA	NA	3	14	0.4%
Total Direct Expenses	0	0	0	0	NA	NA		2,680	79.9%
Gross Margin				0	NA	NA		674	20.1%

Input Analysis	Amount	Number of Farms	Average
Number of Plants per Acre	0	3	27,761
Fertilizer per Acre (kg)	0.0	3	500.3
Contract Labour (Hours per Acre)	0	0	0
Contract Labour ($ per Hour)	$0.00	0	$0.00

Canada