



# PLANNING FOR PROFIT



BRITISH COLUMBIA

Ministry of Agriculture and Food

Organic Garlic  
Southern Interior  
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Agdex 264 - 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 **Gross Margin**, taking into consideration resource constraints, market opportunity, risk and uncertainty.

The **Gross 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                     | 7,500             | lbs./acre        |
| Price                        | \$3.00-\$6.00/lb. |                  |
| Labour                       |                   | Total Hours/Acre |
| Cover Crop                   |                   | 3                |
| Bed & Seed Prep, Plant       |                   | 136              |
| Compost & Mulch              |                   | 100              |
| Irrigate                     |                   | 16               |
| Weed & Clip Seed Pods        |                   | 183              |
| Harvest                      |                   | 150              |
| Clean, Grade, Braid & Market |                   | 331              |

Garlic is an extremely labour-intensive crop, especially when grown organically. The field should be kept as weed-free as possible since garlic is a poor competitor. Garlic is also a very heavy feeder and requires adequate amounts of nitrogen and phosphorous to achieve maximum bulb fill. A rotation which includes at least one green manure crop will maintain good soil structure and provide soil nutrition.

## Marketing Alternatives

The major markets which presently exist for organic garlic are with health food stores, vegetarian restaurants, fruit & vegetable stands, farmer's markets and farm-gate sales. Both bulb size and a major marketing commitment are critical factors in the success of the operation.

## Cash Flow Timing

|      | J | F | M | A | M | J | J  | A  | S   | O  | N  | D |
|------|---|---|---|---|---|---|----|----|-----|----|----|---|
| %Inc |   |   |   |   |   |   |    | 30 | 30  | 20 | 20 |   |
| %Exp |   |   | 5 | 5 |   |   | 10 | 20 | 60* |    |    |   |

\*Planting expense incurred in the previous year. The above information indicates the timing of monthly flow of funds included in the Gross Margin only. A complete **Projected Cash Flow** should include indirect expenses, capital sales and purchases, loans and personal expenses.

## Rules of Thumb

|                            |                        |
|----------------------------|------------------------|
| Investment                 | \$10,000-\$15,000/acre |
| Direct Expense % of Income | 25% - 35%              |
| Total Labour               | 900 - 1,200 hours/acre |

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

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# ORGANIC GARLIC

## Target Yield - 7,500 lbs/acre

### Gross Margin One Acre of Organic Garlic

#### Income\*

|                     | Yield | Price  | Unit | Income          |
|---------------------|-------|--------|------|-----------------|
| Bulk Garlic         | 6,000 | \$3.00 | lb.  | \$18,000        |
| Braided Garlic      | 750   | 6.00   | lb.  | 4,500           |
| Seed Garlic         | 750   | 0.00   | lb.  | 0               |
| <b>Total Income</b> |       |        |      | <b>\$22,500</b> |

#### Direct Expenses

|             | Quantity | Price  | Unit | Expense |
|-------------|----------|--------|------|---------|
| Seed Garlic | 750      | \$3.50 | lb.  | \$2,625 |
| Cover Crop  | 50       | .64    | lb.  | 32      |

#### Compost

|        |     |      |      |     |
|--------|-----|------|------|-----|
| Manure | 40  | 5.00 | yard | 200 |
| Straw  | 400 | 1.00 | bale | 400 |

#### Mulch

|       |     |      |      |     |
|-------|-----|------|------|-----|
| Straw | 400 | 1.00 | bale | 400 |
|-------|-----|------|------|-----|

#### Fuel, Oil & Lubrication

|                                |  |  |  |   |
|--------------------------------|--|--|--|---|
| Machinery Repair & Maintenance |  |  |  | 6 |
|--------------------------------|--|--|--|---|

#### Contracts & Custom Work

|      |  |  |  |    |
|------|--|--|--|----|
| Plow |  |  |  | 50 |
|------|--|--|--|----|

|        |  |  |  |    |
|--------|--|--|--|----|
| Harrow |  |  |  | 50 |
|--------|--|--|--|----|

|                  |    |      |      |    |
|------------------|----|------|------|----|
| Seed Preparation | 14 | 6.84 | hour | 96 |
|------------------|----|------|------|----|

|       |    |      |      |     |
|-------|----|------|------|-----|
| Plant | 40 | 6.84 | hour | 273 |
|-------|----|------|------|-----|

|         |    |      |      |     |
|---------|----|------|------|-----|
| Compost | 36 | 6.84 | hour | 246 |
|---------|----|------|------|-----|

|       |    |      |      |     |
|-------|----|------|------|-----|
| Mulch | 24 | 6.84 | hour | 164 |
|-------|----|------|------|-----|

|      |    |      |      |     |
|------|----|------|------|-----|
| Weed | 70 | 6.84 | hour | 479 |
|------|----|------|------|-----|

|         |     |      |      |     |
|---------|-----|------|------|-----|
| Harvest | 100 | 6.84 | hour | 684 |
|---------|-----|------|------|-----|

|                   |    |      |      |     |
|-------------------|----|------|------|-----|
| Clean & Root Trim | 56 | 6.84 | hour | 380 |
|-------------------|----|------|------|-----|

|              |    |      |      |     |
|--------------|----|------|------|-----|
| Grade & Sort | 56 | 6.84 | hour | 380 |
|--------------|----|------|------|-----|

|       |    |      |      |     |
|-------|----|------|------|-----|
| Braid | 42 | 6.84 | hour | 285 |
|-------|----|------|------|-----|

(Hours of Hired Labour = 438)

|         |     |     |      |     |
|---------|-----|-----|------|-----|
| Cartons | 600 | .50 | each | 300 |
|---------|-----|-----|------|-----|

|                              |  |  |  |                |
|------------------------------|--|--|--|----------------|
| <b>Total Direct Expenses</b> |  |  |  | <b>\$7,188</b> |
|------------------------------|--|--|--|----------------|

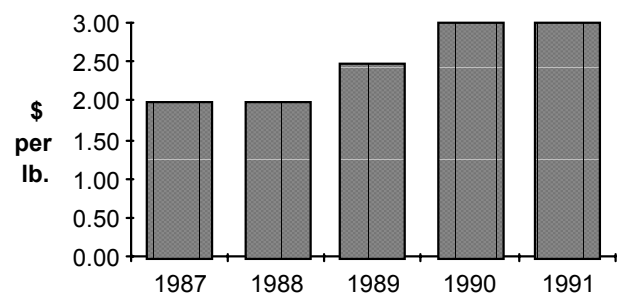
|                     |  |  |  |                 |
|---------------------|--|--|--|-----------------|
| <b>Gross Margin</b> |  |  |  | <b>\$15,312</b> |
|---------------------|--|--|--|-----------------|

\*Income is received in the year following planting.

### Buildings and Machinery Replacement Cost Total Farm Size - 2 Acres

|                          |                 |
|--------------------------|-----------------|
| Buildings                | \$10,000        |
| Drying Racks & Fans      | 500             |
| Rototiller & Attachments | 1,000           |
| Mower                    | 400             |
| Irrigation               | 150             |
| Small Tools & Other      | 650             |
| <b>Total</b>             | <b>\$12,700</b> |

### Organic Garlic Prices



### Gross Margin - Sensitivity Analysis

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

| PRICE<br>\$/lb. | Yield lbs. per Acre |        |               |        |
|-----------------|---------------------|--------|---------------|--------|
|                 | 4,000               | 6,000  | 8,000         | 10,000 |
| <b>1.50</b>     | (1,048)             | 1,872  | 4,062         | 7,712  |
| <b>2.00</b>     | 952                 | 4,872  | 7,812         | 12,712 |
| <b>3.02</b>     | 4,952               | 10,872 | <b>15,312</b> | 22,712 |
| <b>4.00</b>     | 6,952               | 13,872 | 19,062        | 27,712 |

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.