


<p>Farm Business Management Reports</p>		<p>EB1779</p>
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Establishment and Annual Production Costs for Washington Asparagus in 2001

by

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Introduction

In 1989, there were 32,000 acres of asparagus in production in Washington. Since then, the asparagus acreage has consistently declined. In 1998 through 2000, the asparagus harvested was steady at 22,000 acres. However, in 2001 a total of 19,000 acres of asparagus in Washington were harvested, the fewest acres since 1971. The yield per acre has risen from 32 cwt. per acre in 1999 to 36 cwt. per acre for 2001. The reduced acreage has been the result of the profitability of asparagus versus other crops. The declining profitability is partially attributed to the increased competition of imported asparagus from countries with low wage rates, such as Mexico and Peru.

In 2000, asparagus ranked 18th among the top agricultural commodities produced in Washington. Franklin (40.9%) and Yakima (32.8%) counties account for nearly three-fourths of the statewide production¹.

If profitable new technologies of substituting capital for labor are found and the Washington asparagus industry becomes more competitive, more acres may be planted in the future. Until new technologies are found, current managing and growing practices will continue. This study was done to assess the economic costs and profitability of establishing and producing asparagus based on 2001 prices and current managing and growing practices.

As a perennial crop, asparagus does not reach its full production until the fifth year after the crowns are transplanted. To estimate the economic costs of establishment and production for this study it is necessary to:

1. Specify the cultural practices normally followed in Washington to establish and maintain a 40-acre bed of asparagus
2. Estimate the costs of those practices and compare them with possible levels of receipts to establish profitability
3. Calculate the break-even price necessary to economically justify the development of establishing a new asparagus bed.

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¹ Washington Agricultural Statistics Service, 2001.

The economic budgets created in this study include both cash and noncash items. An example of a noncash item is an opportunity cost. For instance, when farmers produce a crop on the land they own, they forego the income that would be attained if the land were rented, minus any cost incurred as the lessor (i.e., real estate taxes). Therefore, the return foregone from the land is an opportunity cost. Since the budget includes full costs (including opportunity costs) and returns over the useful life of the asset, it is referred to as an economic budget.

Costs in the budget can be classified as variable and fixed. A fixed cost, which can be either cash or noncash, does not vary, even with an increase or decrease in production. Machinery interest and land tax are fixed cash costs, and remain constant regardless if the crop is produced. The opportunity cost for management is a noncash fixed cost. It remains fixed because it can be either used or not used during the year. Conversely, a variable cost is one that does change with the amount of product produced. Hand harvesting and labor are examples of costs that vary directly with the level of production.

The economic budgets reflect costs and returns for a production year, and not a calendar year. A production year runs from July 1 to June 30 of the next year. In addition, the budgets are not representative of a particular farm. Rather, they represent costs under the assumptions of this study. It is recommended that the user modify the assumptions to reflect their specific situation.

Budget Assumptions

The major assumptions made to calculate the establishment costs of asparagus include:

1. The asparagus enterprise is a well-managed 40-acre crop grown on a 180-acre diversified farm.
2. The crop is established with transplanted Jersey Giant crowns in the first year. Net accumulated costs for the first five establishment years are amortized over the 10 years of full production at 8.7% interest.
3. A side-roll sprinkler irrigation system (wheel lines) is used. The irrigation system is composed of a main line, 125 h.p. pump, electrical system, 10-foot wheel lines, and valve openers. The equipment is purchased new and depreciated over a 20-year period for the 180-acre farm, of which 40 acres are in asparagus for 15 years. Total costs for the 180-acre system (\$81,900) are prorated for the 40-acre asparagus field. Thus, 22.2% of the total cost is prorated to asparagus.
4. All machinery and equipment costs are based on new 2001 purchase prices. Assuming new equipment shows the enterprise's ability to generate the earnings required to replace depreciable assets. Machinery and equipment depreciation, housing, interest and insurance are calculated according costs of using machinery¹.
5. The interest on operating capital is 7.75%. Investment capital interest is charged at 8.7%.

¹ Pacific Northwest Farm Machinery Costs: 2000.

6. For the Columbia Basin, the 2001 irrigation water charge is \$40.50 per acre, an average of the counties in the region.
7. In the first production year after planting the Jersey Giant crowns, the crop is not harvested. The asparagus bed yields 850, 1,800, 4,000, and 5,000 pounds during the second, third, fourth and fifth years after planting. Through production years 6-15, the bed yields 5500 pounds per acre. Cutting costs are calculated as 45% of the yearly gross revenues from the harvest, which is standard for the industry. These costs do not include swamping or supervision. The price of asparagus used is \$0.54 per pound, which is the average of prices received the past 5 years. Combined prices of fresh pack and processing have ranged from \$0.50 per pound to nearly \$0.57 per pound during that period.
8. Real estate property taxes are from the Franklin County Assessor. The tax rate in 2001 is 1.3% of the average assessed value (\$13.00 per \$1,000 of value). For tax purposes, real estate tax (land), irrigation system, and asparagus crown values are evaluated. The values assumed and the corresponding annual taxes are:

<u>Item</u>	<u>Age of Asparagus Bed</u>	
	<u>1-3 years</u>	<u>4-15 years</u>
Land	\$2,250.00	\$2,250.00
Asparagus Crown	500.00	1,000.00
Irrigation System	1,030.00	1,030.00
Total Value	3,780.00	4,280.00
Per Acre Tax	49.14	55.64

9. Prices for materials and services, assembled through growers, field persons, and industry supply firms, are the average of the selling prices of three major suppliers in the region. The average prices consisted of:

<u>Services:</u>	<u>Units</u>	<u>Price/unit</u>
Custom Listing	Acre	\$ 30.00
Custom Sorting	Acre	50.00
Custom Dipping	Acre	25.00
Custom Planting	Acre	140.00
Custom Aerial Spraying	Acre	6.50
Custom Fertilize Application	Acre	6.25
Irrigation Charge	Acre	40.50
Irrigation Electrical Charge	Acre	32.00
Net Land Rent	Acre	210.00
Real Estate Taxes Year 1-3	Acre	49.14
Real Estate Taxes Year 4-8	Acre	55.64

<u>Materials:</u>	<u>Units</u>	<u>Price/unit</u>
Asparagus Crowns	Thousand	\$ 80.00
Diesel Fuel	Gal	1.45
Gasoline	Gal	1.55
Disyston	Gal	91.61
Sevin XLR Plus	Gal	35.75
Formula-40/2,4 D	Gal	16.05
Karmex	Lb	4.74
Sencor	Lb	20.82
Lorox	Lb	13.33
Roundup	Gal	41.32
Treflan	Gal	26.89
Nitrogen	Lb	0.21
Phosphate	Lb	0.17
Potassium	Lb	0.10

10. A management fee of 5% of the gross revenue when the asparagus bed is in full production reflects the management input made by the asparagus grower.

Itemized Costs, Schedule of Operations, and Materials and Services

The complete budget information is presented in the Appendix for the establishment years 1-5, and for a typical full production year. Below is an overview of the information included in the Appendix tables for each year.

Itemized Costs for Establishing an Asparagus Field

These tables itemize the total cost of operations for asparagus bed development by type of activity and the corresponding per acre costs. Included in the tables is the quantity of units applied or consumed by the activity type.

Schedule of Operations for Establishing an Asparagus Field

A list of the schedule of operations and inputs used, along with the fixed and variable costs associated with each operation, are presented in the schedule of operations tables. Also included is the year and month the operation occurs, and the associated labor or machine hours. The fixed costs in the tables consist of machinery, building, land, establishment, and management.

Machinery and equipment fixed costs include depreciation, interest, insurance, taxes and housing. The land fixed cost is the net land rent, not including taxes and insurance, which represents a typical rental agreement for asparagus ground in the area. While the owner-operator will not have a net land rent cost, it is representative of the rental income the owner foregoes by producing a crop rather than renting the land. In this situation, net land rent is regarded as an opportunity cost. An opportunity cost for management is also included as a fixed cost.

Materials and Services Applied by Operation for Establishing and Asparagus Field

The material and service tables identify the specific type and quantity of services and materials for each operation presented in the schedule of operations tables. For example, the pounds of nitrogen applied in a fertilizer application, or the gallons of Disyston used in the June aerial insect control application

Machinery, Building, and Input Costs

Appendices Tables 7a and 7b report the machinery and equipment needed in the operation to produce asparagus and the associated costs. Included in the tables are the machinery and equipment purchase price, years of life before trade-in, salvage value, and fixed and variable costs. The fixed costs such as depreciation, interest, insurance, taxes and housing are reported on a cost per hour basis. Repair and fuel/lube variable costs are also reported as cost per hour. Annual hours of use for the machinery and equipment are also reported. For the irrigation system, the information is reported as the acreage supported by the system rather than annual hours of use.

ANNUAL ESTABLISHMENT COSTS FOR A 40-ACRE ASPARAGUS BED

The first five years of an asparagus bed are for establishment or preparation for the next 10 years of full production. Soil preparation, planting the crowns, pest management and other routine cultural practices are performed. Over the remainder of this section the annual costs of these activities are presented for the establishment years.

First-Year Establishment Costs

In Appendix Table 1a, the total cost of operations for asparagus bed development is broken down by type of input item and corresponding per acre costs in the first year. Appendix Table 1b lists the schedule of operations along with the fixed and variable costs associated with each operation and the input used. The total cost of operations is \$2,504.54 per acre, with variable and fixed costs being \$2,006.55 and \$497.99 per acre respectively.

The material and services, by operation, used in the first year of establishment are listed in Appendix Table 1c. Before planting in the spring the soil is plowed, fertilized, and then disked to prepare the ground. Crowns are sorted, dipped, and planted and covered by a custom operation after soil preparation. Weed control is done several times during the first year, from April through June. Other field operations include cultivating and irrigation in the first year.

The asparagus crowns are the largest variable cost in year one. A net land rent of \$210 (not including taxes and insurance), management fee, and real estate taxes are the major fixed cost components. The asparagus crowns are transplanted in year one and the spears are allowed to grow into the fern stage to contribute to the health of the crowns. Since no spears are harvested there is no harvest revenue generated.

Second-Year Establishment Costs

During the second year of establishment annual operating costs are \$1,261.56 per acre, which is \$1,242.98 lower than the first year. The fixed costs increase from year one, but the variable costs decline significantly. The itemized costs and schedule of operations are represented in Appendix Tables 2a and 2b, respectively. Appendix Table 2c contains the materials and services required and the corresponding prices and quantities of the inputs used.

In the spring, the ferns are beat and Treflan is applied as a weed control. The ground is rotovated and cultivated in March before the start of the growing season. A small harvest occurs for the first time in the second year; the asparagus field yields 850 pounds per acre and is sold at a market price of \$0.54 per pound.

In the second year, interest on the first year investment cost is incorporated in the budget. This accounts for the interest that could have been earned on an alternative investment. The \$217.89 interest on investment is based on year one's establishment expenses (\$2,504.54) at 8.7% interest.

Third-Year Establishment Costs

Appendix Tables 3a and 3b show the operations and detailed itemized costs during the third year. The material and services in the third year are summarized in Appendix Table 3c. Operating expenses begin to increase as the labor costs of harvesting rise due to larger yields. Cutting expense is calculated as 45% of the gross revenue of the harvest. A harvested yield of 1,800 pounds generates a total revenue of \$972 per acre, and a harvesting labor cost of \$437.40 per acre. Revenues generated are enough to cover the variable costs of year three, but not the fixed costs of operation. The net cost is \$634.29 in the third production year.

Fourth-Year Establishment Costs

Operations in the fourth year of establishment consist of routine cultural practices. Appendix Tables 4a and 4b contain the itemized costs and operations for the year, while Appendix Table 4c lists the materials and services for the operations. Variable costs rise to \$1,352.45 per acre, with fixed costs also increasing (\$860.44). The real estate tax increased, as the asparagus beds are recognized by tax purposes as being in their productive years. Interest on investment accounted for \$342.89 of the fixed costs, due to the negative return in years one through three.

Asparagus production more than doubles to 4,000 pounds, and labor cutting costs totaled \$972 per acre, while the gross revenue from the harvest is \$2,160 per acre. For the fourth straight year, costs are greater than returns.

Fifth-Year Establishment Costs

The final year of establishment costs are presented in Appendix Tables 5a and 5b. Appendix Table 5c contains the materials and services for the final establishment year's operations. Total costs of operation are \$2,463.64 per acre, resulting from a variable and fixed cost of \$1,598.60

and \$865.04 per acre respectively. Gross revenue totaled \$2,700, a yield of 5,000 pounds per acre and a price of \$0.54 accounted for the gross revenue. Year five has a net return of \$236.36 per acre, a positive return for the asparagus beds.

Production Costs and Profit Levels for Asparagus Bed in Full Production

By the sixth year, the asparagus bed is in full production with a yield of 5,500 pounds per acre. Appendix Tables 6a and 6b summarize the annual costs of producing asparagus at full production. Inputs and services are listed in Appendix Table 6c. The total revenue is \$2,970 per acre, while total costs are \$2,817.07 per acre. The total costs include \$577.85 per acre, which is the amortized net establishment cost. Amortizing the net investment cost over 10 years at an 8.7% interest attains a value of \$577.85 per acre. The net investment cost consists of the unrecovered costs in establishment years 1 through 4, and the positive return of year 5, for a total of \$3,757.93 per acre.

Summary of Establishment Costs

The per acre cost of establishing an asparagus bed, the revenues obtained from the asparagus sales, and the net returns for years 1 through 6 are summarized in Table 1. In the first four years, the total costs exceed the total revenues. By the fifth year, the yield is large enough that the total revenue is greater than the total cost, for a positive net return. The net investment cost is the summation of the net costs and returns for year 1 through year 5, for a total of \$3,757.93 per acre. Amortizing the net investment cost over 10 years at 8.7% yields an amortized cost of \$577.85 per acre.

Sensitivity Analysis

Profitability can vary depending on the price received and the yield an asparagus bed generates. A sensitivity analysis is done to find the price and yield combinations that produce a positive return after meeting total costs of production in a mature asparagus bed. In the analysis it is assumed that all costs are constant, both variable and fixed, except those that change with the amount of production. Harvesting expense is the only cost that varies directly with the level of production. It is further assumed that the 5-year net establishment cost of \$3,757.92 per acre is the same for all price levels and levels of production (a price of \$0.54 per pound throughout the establishment years). Table 2 shows net profitability levels based on varying yields and prices during the productive years. For example, with a price of \$0.51 per pound and production of 5,200 pounds per acre, total costs are not covered. On the contrary, increasing the price received to \$0.52 per pound with the same yield, the net returns become positive.

Understanding the Economic Budgets

This study generated economic budgets. These budgets are comprised of total or full economic costs, which include opportunity costs. An opportunity cost is the revenue that could have been earned by using the next best alternative. For example, if a farmer invests \$40,000 of equity into a new purchase of a tractor, the farmer gives up the next best alternative of similar risk such as investing in the stock market. A return greater than the alternative investment must be met in

Table 1. Summary of Revenue, Costs and Returns Per Acre

Revenue/Cost	Years					
	First	Second	Third	Fourth	Fifth	Full Production
Revenue						
Yield (lbs)	0	850	1,800	4,000	5,000	5,500
Price (\$/lb)	0.54	0.54	0.54	0.54	0.54	0.54
Total Revenue (\$)	0.00	459.00	972.00	2,160.00	2,700.00	2,970.00
Variable Cost						
Non-harvest	2,006.55	315.02	333.65	337.06	337.08	337.07
Harvest	0.00	240.05	473.88	1,015.39	1,261.52	1,384.59
Total Variable Costs	2,006.55	555.07	807.53	1,352.45	1,598.60	1,721.66
Fixed Costs						
Management Fee	148.50	148.50	148.50	148.50	148.50	148.50
Real Estate Taxes	49.14	49.14	49.14	55.64	55.64	55.64
Net Land Rent	210.00	210.00	210.00	210.00	210.00	210.00
Tractor	15.38	7.81	6.39	6.39	6.39	6.39
Machinery	74.97	73.15	97.02	97.02	97.02	97.02
Interest on Invest.	0.00	217.89	287.71	342.89	347.49	577.85
Total Fixed Cost	497.99	706.49	798.76	860.44	865.04	1,095.40
Total Cost	2,504.54	1,261.56	1,606.29	2,212.90	2,463.64	2,817.07
Net Return (\$)	-2,504.54	-802.56	-634.29	-52.90	236.36	152.93

order to achieve what is considered an economic profit. Assume that the next best alternative for the farmer is to invest in a stock that has a 10% annual return. The alternative generates an annual return of \$4,000 based on a 10% interest. Therefore, the investment in equipment must have a net return over \$4,000 to obtain an economic profit.

Establishing an enterprise generates what is referred to as establishment costs. Costs that are incurred in establishing asparagus include listing, dipping, sorting, and transplanting of asparagus crowns, among other things. Over the course of five years, an asparagus bed is established for the state of full production. To account for the full economic costs involved in establishing the enterprise, the net establishment costs must be amortized over the useful life of the asparagus bed for the full production years. Summing the net costs and returns for years 1 through 5 generates a net establishment cost of \$3,757.93 per acre. Amortizing the value over 10 years using 8.7% interest results in \$577.85 per acre annual noncash cost to account for full economic costs. Therefore, for a full market return to be realized all economic costs including the opportunity costs must be covered by the operation.

Table 2. Estimated Economic Profits Given Varying Yield and Price Levels for Asparagus (\$/Acre)

Yield (lbs/Ac.)	Price (\$/lb)											
	0.44	0.45	0.46	0.47	0.48	0.49	0.50	0.51	0.52	0.53	0.54	0.55
5000	-270.56	-243.06	-215.56	-188.06	-160.56	-133.06	-105.56	-78.06	-50.56	-23.06	4.44	31.94
5100	-246.36	-218.31	-190.26	-162.21	-134.16	-106.11	-78.06	-50.01	-21.96	6.09	34.14	62.19
5200	-222.16	-193.56	-164.96	-136.36	-107.76	-79.16	-50.56	-21.96	6.64	35.24	63.84	92.44
5300	-197.96	-168.81	-139.66	-110.51	-81.36	-52.21	-23.06	6.09	35.24	64.39	93.54	122.69
5400	-173.76	-144.06	-114.36	-84.66	-54.96	-25.26	4.44	34.14	63.84	93.54	123.24	152.94
5500	-149.56	-119.31	-89.06	-58.81	-28.56	1.69	31.94	62.19	92.44	122.69	152.94	183.19
5600	-125.36	-94.56	-63.76	-32.96	-2.16	28.64	59.44	90.24	121.04	151.84	182.64	213.44
5700	-101.16	-69.81	-38.46	-7.11	24.24	55.59	86.94	118.29	149.64	180.99	212.34	243.69
5800	-76.96	-45.06	-13.16	18.74	50.64	82.54	114.44	146.34	178.24	210.14	242.04	273.94
5900	-52.76	-20.31	12.14	44.59	77.04	109.49	141.94	174.39	206.84	239.29	271.74	304.19
6000	-28.56	4.44	37.44	70.44	103.44	136.44	169.44	202.44	235.44	268.44	301.44	334.44

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Yield (lbs/Ac.)	Price (\$/lb)											
	0.56	0.57	0.58	0.59	0.60	0.61	0.62	0.63	0.64	0.65	0.66	0.67
5000	59.44	86.94	114.44	141.94	169.44	196.94	224.44	251.94	279.44	306.94	334.44	361.94
5100	90.24	118.29	146.34	174.39	202.44	230.49	258.54	286.59	314.64	342.69	370.74	398.79
5200	121.04	149.64	178.24	206.84	235.44	264.04	292.64	321.24	349.84	378.44	407.04	435.64
5300	151.84	180.99	210.14	239.29	268.44	297.59	326.74	355.89	385.04	414.19	443.34	472.49
5400	182.64	212.34	242.04	271.74	301.44	331.14	360.84	390.54	420.24	449.94	479.64	509.34
5500	213.44	243.69	273.94	304.19	334.44	364.69	394.94	425.19	455.44	485.69	515.94	546.19
5600	244.24	275.04	305.84	336.64	367.44	398.24	429.04	459.84	490.64	521.44	552.24	583.04
5700	275.04	306.39	337.74	369.09	400.44	431.79	463.14	494.49	525.84	557.19	588.54	619.89
5800	305.84	337.74	369.64	401.54	433.44	465.34	497.24	529.14	561.04	592.94	624.84	656.74
5900	336.64	369.09	401.54	433.99	466.44	498.89	531.34	563.79	596.24	628.69	661.14	693.59
6000	367.44	400.44	433.44	466.44	499.44	532.44	565.44	598.44	631.44	664.44	697.44	730.44

To provide an assessment of merely the financial cost of the operation and not the economic cost, the opportunity costs are excluded. For example, assume a producer owns the land and provides all of the managerial decisions, then land rent and management fee costs do not affect the cash flow of the operation. Also, assume that the farmer in this situation financed the asparagus establishment with 40% debt, and has an equipment loan of \$100,000, of which an annual interest of 10% is paid over 10 years. A cash flow projection was prepared (Table 3) that includes the financial costs of the operation for years 1 through 6, excluding the following opportunity costs: land rent and management fee. The amortized costs in the enterprise budget are replaced in the cash flow with the interest on investment, and tractor and machinery interest from the enterprise budget is replaced with interest on the equipment loan.

For tax purposes, it is assumed that the producer is in a 27% marginal tax bracket; the income is considered marginal to that which is earned on the rest of the farm. Calculation of taxable income included the depreciation expense. However, since depreciation is a noncash item, it is added back to the gross income in order to get the net cash flow from operations. In establishment years 1, 2 and 3 a negative return is received from the operation. The fourth year provides the first positive return. During the first full production year, which is year 6, a net return of \$627.95 per acre is earned.

Conclusions

The assumptions and procedures in the study provide a basis that farmers can use to estimate their cost and return situation for asparagus. The conditions in this publication cannot be considered typical for all asparagus growers. Nonetheless, it provides a benchmark by which the economic health of a representative asparagus farm can be evaluated.

In the first year of establishment, the total costs of operation were \$2,504.54 per acre, largely due to the start-up costs of planting asparagus and additional weed control required to establish the asparagus bed. No harvest revenue was generated that year. Costs of operation decreased to \$1,261.56 per acre during the second year. A small harvest generated a revenue of \$459 per acre. In year 3, the revenue of \$972 per acre is enough to cover the variable costs, but not the fixed costs. In the fourth year, the net cost is still greater than the return. By the final year of establishment (year 5), the total costs per acre are \$2,463.64 and gross revenue is \$2,700, yielding a net positive return over costs. A positive return of nearly \$153 per acre is achieved in the full production years.

Establishment costs must be recovered during the crop's production years to consider the enterprise viable. Summing the net returns during the five years of establishment result in a net cost for establishing an asparagus bed of \$3,757.93 per acre. However, depending upon the different yields, prices, and cultural practices the net investment cost can vary significantly. Based on the current assumptions, it is not until the fifth year after establishment that the first returns over costs are realized.

Table 3. Annual Net Cash Flow Projections for 40-Acre Asparagus Field on Per Acre Basis

Period	1	2	3	4	5	6
Yield	0	850	1800	4000	5000	5500
Price	0.54	0.54	0.54	0.54	0.54	0.54
REVENUE:						
Asparagus Sales	\$0.00	459.00	972	2160	2700	2970
EXPENSES:						
VARIABLE COSTS:						
Planting: Crowns, Listing, etc.	\$1,605.00	--	--	--	--	--
Aerial spraying	\$6.50	\$13.00	\$13.00	\$13.00	\$13.00	\$13.00
Disyston	\$11.91	\$23.82	\$22.90	\$22.90	\$22.90	\$22.90
Sevin XLR Plus	\$8.94	\$17.88	\$17.88	\$17.88	\$17.88	\$17.88
Roundup	\$10.33	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Lorox	\$13.33	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Formula -40/ 2, 4D	\$2.09	\$0.00	\$2.09	\$2.09	\$2.09	\$2.09
Treflan FP	\$0.00	\$6.72	\$6.72	\$10.08	\$10.08	\$10.08
Labor (Harvest)	\$0.00	\$206.55	\$437.40	\$972.00	\$1,215.00	\$1,336.50
Karmex	\$0.00	\$5.69	\$5.69	\$5.69	\$5.69	\$5.69
Sencor	\$0.00	\$13.12	\$13.12	\$13.12	\$13.12	\$13.12
Custom Fert. App	\$6.25	\$6.25	\$6.25	\$6.25	\$6.25	\$6.25
Nitrogen	\$28.35	\$25.20	\$25.20	\$25.20	\$25.20	\$25.20
Phosphate and Potassium	\$17.25	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Custom Irrigate	\$16.20	\$40.50	\$40.50	\$40.50	\$40.50	\$40.50
Irr Electricity	\$12.80	\$32.00	\$32.00	\$32.00	\$32.00	\$32.00
Overhead	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00	\$60.00
Interest on Op. Cap.	\$37.95	\$13.61	\$17.04	\$24.33	\$27.47	\$29.03
Tractor Repair and Fuel/Lube	\$27.41	\$16.04	\$13.12	\$13.12	\$13.12	\$13.12
Machinery Repair and Fuel/Lube	\$18.18	\$22.41	\$46.90	\$46.90	\$46.90	\$46.90
Labor	\$124.00	\$52.30	\$47.40	\$47.40	\$47.40	\$47.40
Total Variable Cost:	\$2,006.49	\$555.09	\$807.21	\$1,352.46	\$1,598.60	\$1,721.66
FIXED COSTS:						
Insurance	\$2.46	\$2.16	\$2.55	\$2.55	\$2.55	\$2.55
Interest on Loan	\$44.44	\$44.44	\$44.44	\$44.44	\$44.44	\$44.44
Depreciation	\$44.81	\$41.17	\$56.02	\$56.02	\$56.02	\$56.02
Taxes	\$5.72	\$5.04	\$5.94	\$5.94	\$5.94	\$5.94
Housing	\$1.81	\$1.32	\$1.97	\$1.97	\$1.97	\$1.97
Interest on Investment	\$0.00	\$87.16	\$115.08	\$137.16	\$139.00	\$231.14
RE Tax	\$49.14	\$49.14	\$49.14	\$55.64	\$55.64	\$55.64
Total Fixed Cost:	\$148.38	\$230.43	\$275.14	\$303.72	\$305.56	\$397.70
Total Cost:	\$2,165.99	\$793.15	\$1,086.15	\$1,655.75	\$1,899.09	\$2,109.63
Taxable Income	(\$2,165.99)	(\$334.15)	(\$114.15)	\$504.25	\$800.91	\$860.37
Income Tax	0	0	0	\$136.15	\$216.24	\$232.30
Gross Cash Flow	(\$2,165.99)	(\$334.15)	(\$114.15)	\$368.10	\$584.66	\$628.07
+Depreciation	\$44.81	\$41.17	\$56.02	\$56.02	\$56.02	\$56.02
- Principal	\$34.86	\$38.34	\$42.18	\$46.40	\$51.04	\$56.14
Net Cash Flow	(\$2,156.03)	(\$331.32)	(\$100.31)	\$377.72	\$589.65	\$627.95

APPENDIX

APPENDIX TABLE 1A. ITEMIZED COSTS PER ACRE FOR ESTABLISHING A
40-ACRE ASPARAGUS FIELD - YEAR 1

		PRICE OR		VALUE OR	YOUR
	UNIT	COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
CUSTOM DIPPING	ACRE	25.00	1.00	25.00	_____
CUSTOM PLANTING	ACRE	140.00	1.00	140.00	_____
ASPARAGUS CROWN	THOU	80.00	17.00	1360.00	_____
CUSTOM LISTING	ACRE	30.00	1.00	30.00	_____
CUSTOM SORTING	ACRE	50.00	1.00	50.00	_____
CUSTOM FERT.APP	ACRE	6.25	1.00	6.25	_____
PHOSPHATE	LB	.17	75.00	12.75	_____
POTASSIUM	LB	.10	45.00	4.50	_____
NITROGEN	LB	.21	135.00	28.35	_____
ROUNDUP	GAL	41.32	.25	10.33	_____
LOROX	LB	13.33	1.00	13.33	_____
FORMULA-40/2,4D	GAL	16.05	.13	2.09	_____
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.91	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
CUSTOM IRRIGATE	ACRE	40.50	.40	16.20	_____
IRR ELECTRICITY	ACRE	32.00	.40	12.80	_____
TRACTOR REPAIR	ACRE	7.00	1.00	7.00	_____
TRACTOR FUEL/LUBE	ACRE	20.41	1.00	20.41	_____
MACHINERY REPAIRS	ACRE	14.17	1.00	14.17	_____
MACHINE FUEL/LUBE	ACRE	4.01	1.00	4.01	_____
LABOR (TRAC/MACH)	ACRE	124.00	1.00	124.00	_____
INTEREST ON OP. CAP.	ACRE	38.01	1.00	38.01	_____
OVERHEAD	ACRE	60.00	1.00	60.00	_____

TOTAL VARIABLE COST				2006.55	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	6.68	1.00	6.68	_____
TRACTOR INTEREST	ACRE	6.47	1.00	6.47	_____
TRACTOR INSURANCE	ACRE	.45	1.00	.45	_____
TRACTOR TAXES	ACRE	1.04	1.00	1.04	_____
TRACTOR HOUSING	ACRE	.74	1.00	.74	_____
MACHINE DEPRECIATION	ACRE	38.13	1.00	38.13	_____
MACHINE INTEREST	ACRE	29.08	1.00	29.08	_____
MACHINE INSURANCE	ACRE	2.01	1.00	2.01	_____
MACHINE TAXES	ACRE	4.68	1.00	4.68	_____
MACHINE HOUSING	ACRE	1.07	1.00	1.07	_____
NET LAND RENT	ACRE	210.00	1.00	210.00	_____
RE TAX 1-3	ACRE	49.14	1.00	49.14	_____
MANAGEMENT FEE	ACRE	148.50	1.00	148.50	_____

TOTAL FIXED COST				497.99	_____
TOTAL COST				2504.54	_____

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

APPENDIX TABLE 1B. SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A 40-ACRE ASPARAGUS FIELD - YEAR 1

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		
PLOW	105 HP TRACTOR, PLOW MOLDBOARD	MAR	1	.60	.73	9.34	8.67	7.30	.00	.00	.31	16.28	25.62
FERTILIZE	CUSTOM FERTILIZER APPLICATION	MAR	1	.00	.00	.00	.00	.00	6.25	45.60	1.00	52.85	52.85
DISK	105 HP TRACTOR 13' TANDEM DISK	MAR	1	.20	.24	3.93	2.78	2.40	.00	.00	.10	5.28	9.21
LISTING	CUSTOM LISTING	MAR	1	.00	.00	.00	.00	.00	30.00	.00	.58	30.58	30.58
SORTING CROWNS	CUSTOM SORTING	MAR	1	.00	.00	.00	.00	.00	50.00	.00	.97	50.97	50.97
DIPPING CROWNS	CUSTOM DIPPING	MAR	1	.00	.00	.00	.00	.00	25.00	.00	.48	25.48	25.48
PLANTING	CUSTOM PLANTING	MAR	1	.00	.00	.00	.00	.00	140.00	1360.00	29.06	1529.06	1529.06
PLANTING	SUPERVISE PLANTING	MAR	1	.00	2.00	.00	.00	20.00	.00	.00	.39	20.39	20.39
COVER ROOTS	60 HP TRACTOR DRAGGING BOARD	MAR	1	.52	.62	1.63	3.35	6.20	.00	.00	.19	9.74	11.37
CULTIVATE	60 HP TRACTOR, 2 ROW LILLISTON	APR	1	.46	.55	3.73	3.83	5.50	.00	.00	.12	9.45	13.18
SPRAY WEEDS	60 HP TRACTOR PTO SPRAYER	APR	1	.15	.18	1.65	1.23	1.80	.00	10.33	.17	13.53	15.18
IRRIGATION	IRRIGATE MAY TO SEPTEMBER	SEA	1	.00	.20	47.09	4.63	2.00	29.00	.00	1.38	37.01	84.10
HAND HOEING	HAND HOEING	MAY	1	.00	6.00	.00	.00	60.00	.00	.00	.39	60.39	60.39
CULTIVATE	60 HP TRACTOR, 2 ROW LILLISTON	MAY	1	.91	1.10	7.39	7.57	11.00	.00	.00	.12	18.69	26.08
SPRAY WEEDS	60 HP TRACTOR PTO SPRAYER	MAY	1	.15	.18	1.65	1.23	1.80	.00	13.33	.11	16.46	18.11
SPOT SPRAY	60 HP TRACTOR, PTO SPRAYER	JUN	1	.50	.60	5.49	4.09	6.00	.00	2.09	.00	12.17	17.67
SPRAY INSECTS	CUSTOM AERIAL SPRAYING	JUN	1	.00	.00	.00	.00	.00	6.50	20.85	.00	27.35	27.35
MANAGEMENT FEE	5% OF FULL PRODUCTION REVENUE	ANN	1	.00	.00	148.50	.00	.00	.00	.00	.00	.00	148.50
LABOR PICKUP	MISCELLANEOUS USE	ANN	1	.25	.00	1.49	1.82	.00	.00	.00	.07	1.89	3.38
PICKUP	MISCELLANEOUS USE	ANN	1	.75	.00	6.96	6.39	.00	.00	.00	.25	6.64	13.60
LAND	NET LAND RENT	ANN	1	.00	.00	210.00	.00	.00	.00	.00	.00	.00	210.00
TAXES	REAL ESTATE, TAXES IN YEAR ONE	ANN	1	.00	.00	49.14	.00	.00	.00	.00	.00	.00	49.14
OVERHEAD	UTILITIES, TELEPHONE, ETC.	ANN	1	.00	.00	.00	.00	.00	.00	60.00	2.33	62.33	62.33
TOTAL PER ACRE				4.49	12.40	497.99	45.59	124.00	286.75	1512.19	38.01	2006.55	2504.54

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

Appendix Table 1c. Material and Services Used by Operation in the First Production Year

Operation	Period	Material and/or Service
Fertilize	March	135 lbs. Nitrogen @ \$.21/lb, 75 lbs. Phosphate @ \$.17/lb, 45 lbs. Potassium @ \$.10/lb; Custom hire @ \$6.25/acre
Listing	March	Custom hire @ \$30/acre
Sorting Crown	March	Custom hire @ \$50/acre
Dipping Crown	March	Custom hire @ \$25.00/acre
Planting	March	Custom hire @ \$140.00/acre
Planting Asparagus	March	17,000 Crowns @ \$80.00/thousand
Spray Weeds	April	.25 gal. of Roundup @ \$41.32/gal.
Irrigation	Season	Irrigation Charge @ \$16.20, Electricity Charge @ \$12.80
Spray Weeds	May	1 lb. of Lorox @ \$13.33/lb.
Spot Spray	June	.125 gal. of 2,4D @ \$16.05/gal.
Spray Insect	June	.125 gal. of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75; Custom Hire @ \$6.50/acre
Overhead	Annual	Utilities and Expenses @ \$60/acre

APPENDIX TABLE 2A. ITEMIZED COSTS PER ACRE FOR ESTABLISHING A
40-ACRE ASPARAGUS FIELD - YEAR 2

		PRICE OR		VALUE OR	YOUR
	UNIT	COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.91	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.91	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
TREFLAN FP	GAL	26.89	.25	6.72	_____
CUT (YR.2)	ACRE	206.55	1.00	206.55	_____
KARMEX	LB	4.74	1.20	5.69	_____
SENCOR	LB	20.82	.63	13.12	_____
CUSTOM FERT.APP	ACRE	6.25	1.00	6.25	_____
NITROGEN	LB	.21	120.00	25.20	_____
CUSTOM IRRIGATE	ACRE	40.50	1.00	40.50	_____
IRR ELECTRICITY	ACRE	32.00	1.00	32.00	_____
TRACTOR REPAIR	ACRE	3.60	1.00	3.60	_____
TRACTOR FUEL/LUBE	ACRE	12.44	1.00	12.44	_____
MACHINERY REPAIRS	ACRE	14.39	1.00	14.39	_____
MACHINE FUEL/LUBE	ACRE	8.02	1.00	8.02	_____
LABOR (TRAC/MACH)	ACRE	52.30	1.00	52.30	_____
INTEREST ON OP. CAP.	ACRE	13.51	1.00	13.61	_____
OVERHEAD	ACRE	60.00	1.00	60.00	_____

TOTAL VARIABLE COST				555.07	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	3.39	1.00	3.39	_____
TRACTOR INTEREST	ACRE	3.28	1.00	3.28	_____
TRACTOR INSURANCE	ACRE	.23	1.00	.23	_____
TRACTOR TAXES	ACRE	.53	1.00	.53	_____
TRACTOR HOUSING	ACRE	.38	1.00	.38	_____
MACHINE DEPRECIATION	ACRE	37.78	1.00	37.78	_____
MACHINE INTEREST	ACRE	28.00	1.00	28.00	_____
MACHINE INSURANCE	ACRE	1.93	1.00	1.93	_____
MACHINE TAXES	ACRE	4.51	1.00	4.51	_____
MACHINE HOUSING	ACRE	.94	1.00	.94	_____
RE TAX 1-3	ACRE	49.14	1.00	49.14	_____
NET LAND RENT	ACRE	210.00	1.00	210.00	_____
MANAGEMENT FEE	ACRE	148.50	1.00	148.50	_____
INVEST INT (Y1)	ACRE	217.89	1.00	217.89	_____

TOTAL FIXED COST				706.49	_____
TOTAL COST				1261.56	_____

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

Appendix Table 2c. Material and Service Used by Operation in the Second Production Year

Operation	Period	Material and/or Service
Cover Spray	July	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75; \$6.50/acre Aerial Spraying
Insect Control	August	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75; \$6.50/acre Aerial Spraying
Weed Control	March	.25 gal of Treflan @ \$26.89/gal
Harvest	April/June	45% of Gross Revenue for a total of \$206.55
Herbicide at Lay-by	June	1.20 lb of Karmex @ \$4.74/lb .63 lb of Sencor @ \$20.82/lb
Fertilize	June	120 lbs of Nitrogen @ \$.21/lb \$6.25 for Custom Fertilize Service
Irrigation	Seasonal	Electricity @ \$32/acre, Irrigation Charge @ \$40.50/acre
Overhead	Annual	Phone, Utilities for a total of \$60/acre

APPENDIX TABLE 3A. ITEMIZED COSTS PER ACRE FOR ESTABLISHING A
40-ACRE ASPARAGUS FIELD - YEAR 3

		PRICE OR		VALUE OR	YOUR
	UNIT	COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
TREFLAN FP	GAL	26.89	.25	6.72	_____
FORMULA-40/2,4D	GAL	16.05	.13	2.09	_____
CUT (Y3)	ACRE	437.40	1.00	437.40	_____
SENCOR	LB	20.82	.63	13.12	_____
KARMEX	LB	4.74	1.20	5.69	_____
CUSTOM FERT.APP	ACRE	6.25	1.00	6.25	_____
NITROGEN	LB	.21	120.00	25.20	_____
CUSTOM IRRIGATE	ACRE	40.50	1.00	40.50	_____
IRR ELECTRICITY	ACRE	32.00	1.00	32.00	_____
TRACTOR REPAIR	ACRE	2.94	1.00	2.94	_____
TRACTOR FUEL/LUBE	ACRE	10.18	1.00	10.18	_____
MACHINERY REPAIRS	ACRE	26.58	1.00	26.58	_____
MACHINE FUEL/LUBE	ACRE	20.32	1.00	20.32	_____
LABOR (TRAC/MACH)	ACRE	47.40	1.00	47.40	_____
INTEREST ON OP. CAP.	ACRE	17.36	1.00	17.36	_____
OVERHEAD	ACRE	60.00	1.00	60.00	_____

TOTAL VARIABLE COST				807.52	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	2.78	1.00	2.78	_____
TRACTOR INTEREST	ACRE	2.69	1.00	2.69	_____
TRACTOR INSURANCE	ACRE	.19	1.00	.19	_____
TRACTOR TAXES	ACRE	.43	1.00	.43	_____
TRACTOR HOUSING	ACRE	.31	1.00	.31	_____
MACHINE DEPRECIATION	ACRE	53.24	1.00	53.24	_____
MACHINE INTEREST	ACRE	34.25	1.00	34.25	_____
MACHINE INSURANCE	ACRE	2.36	1.00	2.36	_____
MACHINE TAXES	ACRE	5.51	1.00	5.51	_____
MACHINE HOUSING	ACRE	1.66	1.00	1.66	_____
MANAGEMENT FEE	ACRE	148.50	1.00	148.50	_____
NET LAND RENT	ACRE	210.00	1.00	210.00	_____
INVEST INT. (Y2)	ACRE	287.71	1.00	287.71	_____
RE TAX 1-3	ACRE	49.14	1.00	49.14	_____

TOTAL FIXED COST				798.76	_____
TOTAL COST				1606.29	_____

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

APPENDIX TABLE 3B. SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A 40-ACRE ASPARAGUS FIELD - YEAR 3

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	\$
INSECT CONTROL	CUSTOM AERIAL SPRAYING	JUL	3	.00	.00	.00	.00	.00	6.50	20.39	1.91	28.80	28.80
INSECT CONTROL	CUSTOM AERIAL SPRAYING	AUG	3	.00	.00	.00	.00	.00	6.50	20.39	1.74	28.63	28.63
BEAT FERNS	60 HP TRACTOR, ROTARY MOWER	MAR	3	.37	.45	4.08	3.53	4.50	.00	.00	.16	8.18	12.26
WEED CONTROL	60 HP TRACTOR, PTO SPRAYER	MAR	3	.15	.18	1.65	1.23	1.80	.00	6.72	.19	9.94	11.59
ROTOVATE	60 HP TRACTOR, 5' ROTOVATOR	MAR	3	.69	.83	7.95	7.16	8.30	.00	.00	.30	15.76	23.71
IRRIGATION	IRRIGATE APRIL TO SEPTEMBER	SEA	3	.00	.50	47.09	4.63	5.00	72.50	.00	3.18	85.31	132.41
CUT	45% OF ANNUAL GROSS REVENUE	APR	3	.00	.00	.00	.00	.00	437.40	.00	5.65	443.05	443.05
SWAMPING	55 HP TRACTOR, TRAILER	APR	3	.44	.54	1.89	3.16	5.40	.00	.00	.11	8.67	10.57
HARVEST	SUPERVISE HARVEST	APR	3	.00	2.00	.00	.00	20.00	.00	.00	.26	20.26	20.26
SPOT SPRAY	60 HP TRACTOR, PTO SPRAYER	APR	3	.05	.06	.55	.41	.60	.00	2.09	.04	3.14	3.68
APPLY HERBICIDE	60 HP TRACTOR, PTO SPRAYER	JUN	3	.15	.18	1.65	1.23	1.80	.00	18.80	.00	21.83	23.48
FERTILIZE	CUSTOM FERTILIZER APPLICATION	JUN	3	.00	.00	.00	.00	.00	6.25	25.20	.00	31.45	31.45
MANAGEMENT FEE	5% OF FULL PRODUCTION REVENUE	ANN	3	.00	.00	148.50	.00	.00	.00	.00	.00	.00	148.50
LABOR PICKUP	MISCELLANEOUS USE	ANN	3	1.80	.00	10.72	13.12	.00	.00	.00	.51	13.62	24.35
PICKUP	MISCELLANEOUS USE	ANN	3	3.00	.00	27.83	25.57	.00	.00	.00	.99	26.56	54.39
INTEREST	ACCUMULATED NET ESTAB COST	ANN	3	.00	.00	287.71	.00	.00	.00	.00	.00	.00	287.71
LAND	NET LAND RENT	ANN	3	.00	.00	210.00	.00	.00	.00	.00	.00	.00	210.00
TAXES	RE TAXES IN YEAR THREE	ANN	3	.00	.00	49.14	.00	.00	.00	.00	.00	.00	49.14
OVERHEAD	UTILITIES, TELEPHONE, ETC.	ANN	3	.00	.00	.00	.00	.00	.00	60.00	2.33	62.33	62.33
TOTAL PER ACRE				6.65	4.74	798.76	60.03	47.40	529.15	153.59	17.36	807.52	1606.29

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

Appendix Table 3c. Material and Services Used by Operation in the Third Production Year

Operation	Period	Material and/or Service
Cover Spray	July	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ 35.75/gal; \$6.50/acre Aerial Spraying
Insect Control	August	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ 35.75/gal; \$6.50/acre Aerial Spraying
Weed Control	March	.25 gal of Treflan @ \$26.89/gal
Spot Spray	April	.13 gal. of Formula-40/2,4-D @ \$16.05/gal.
Harvest	April/June	45% of Gross Revenue for a total of \$437.40
Herbicide at Lay-by	June	1.20 lb of Karmex @ \$4.74/lb .63 lb of Sencor @ \$20.82/lb
Fertilize	June	120 lbs of Nitrogen @ \$.21/lb \$6.25 for Custom Fertilize Service
Irrigation	Seasonal	Electricity @ \$32/acre, Irrigation Charge @ \$40.50/acre
Overhead	Annual	Phone, Utilities for a total of \$60/acre

APPENDIX TABLE 4A. ITEMIZED COSTS PER ACRE FOR ESTABLISHING A
40-ACRE ASPARAGUS FIELD - YEAR 4

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
TREFLAN FP	GAL	26.89	.38	10.08	_____
CUT (Y-4)	ACRE	972.00	1.00	972.00	_____
FORMULA-40/2,4D	GAL	16.05	.13	2.09	_____
CUSTOM FERT.APP	ACRE	6.25	1.00	6.25	_____
NITROGEN	LB	.21	120.00	25.20	_____
SENCOR	LB	20.82	.63	13.12	_____
KARMEX	LB	4.74	1.20	5.69	_____
CUSTOM IRRIGATE	ACRE	40.50	1.00	40.50	_____
IRR ELECTRICITY	ACRE	32.00	1.00	32.00	_____
TRACTOR REPAIR	ACRE	2.94	1.00	2.94	_____
TRACTOR FUEL/LUBE	ACRE	10.18	1.00	10.18	_____
MACHINERY REPAIRS	ACRE	26.58	1.00	26.58	_____
MACHINE FUEL/LUBE	ACRE	20.32	1.00	20.32	_____
LABOR (TRAC/MACH)	ACRE	47.40	1.00	47.40	_____
INTEREST ON OP. CAP.	ACRE	24.33	1.00	24.33	_____
OVERHEAD	ACRE	60.00	1.00	60.00	_____

TOTAL VARIABLE COST				1352.45	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	2.78	1.00	2.78	_____
TRACTOR INTEREST	ACRE	2.69	1.00	2.69	_____
TRACTOR INSURANCE	ACRE	.19	1.00	.19	_____
TRACTOR TAXES	ACRE	.43	1.00	.43	_____
TRACTOR HOUSING	ACRE	.31	1.00	.31	_____
MACHINE DEPRECIATION	ACRE	53.24	1.00	53.24	_____
MACHINE INTEREST	ACRE	34.25	1.00	34.25	_____
MACHINE INSURANCE	ACRE	2.36	1.00	2.36	_____
MACHINE TAXES	ACRE	5.51	1.00	5.51	_____
MACHINE HOUSING	ACRE	1.66	1.00	1.66	_____
MANAGEMENT FEE	ACRE	148.50	1.00	148.50	_____
INVEST INT (Y3)	ACRE	342.89	1.00	342.89	_____
NET LAND RENT	ACRE	210.00	1.00	210.00	_____
RE TAX 4-15	ACRE	55.64	1.00	55.64	_____

TOTAL FIXED COST				860.44	_____
TOTAL COST				2212.90	_____

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

APPENDIX TABLE 4B. SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A 40-ACRE ASPARAGUS FIELD - YEAR 4

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	\$
INSECT CONTROL	CUSTOM AERIAL SPRAYING	JUL	4	.00	.00	.00	.00	.00	6.50	20.39	1.91	28.80	28.80
INSECT CONTROL	CUSTOM AERIAL SPRAYING	AUG	4	.00	.00	.00	.00	.00	6.50	20.39	1.74	28.63	28.63
BEAT FERNS	60 HP TRACTOR, ROTARY MOWER	MAR	4	.37	.45	4.08	3.53	4.50	.00	.00	.16	8.18	12.26
WEED CONTROL	60 HP TRACTOR, PTO SPRAYER	MAR	4	.15	.18	1.65	1.23	1.80	.00	10.08	.25	13.36	15.01
ROTOVATE	60 HP TRACTOR, 5' ROTOVATOR	MAR	4	.69	.83	7.95	7.16	8.30	.00	.00	.30	15.76	23.71
IRRIGATION	IRRIGATE APRIL TO SEPTEMBER	SEA	4	.00	.50	47.09	4.63	5.00	72.50	.00	3.18	85.31	132.41
CUT	45% OF ANNUAL GROSS REVENUE	APR	4	.00	.00	.00	.00	.00	972.00	.00	12.56	984.56	984.56
SWAMPING	60 HP TRACTOR, TRAILER	APR	4	.44	.54	1.89	3.16	5.40	.00	.00	.11	8.67	10.57
HARVEST	SUPERVISE HARVEST	APR	4	.00	2.00	.00	.00	20.00	.00	.00	.26	20.26	20.26
SPOT SPRAY	60 HP TRACTOR, PTO SPRAYER	APR	4	.05	.06	.55	.41	.60	.00	2.09	.04	3.14	3.68
APPLY HERBICIDE	60 HP TRACTOR, PTO SPRAYER	JUN	4	.15	.18	1.65	1.23	1.80	.00	18.80	.00	21.83	23.48
FERTILIZE	CUSTOM FERTILIZER APPLICATION	JUN	4	.00	.00	.00	.00	.00	6.25	25.20	.00	31.45	31.45
MANAGEMENT FEE	7% OF FULL PRODUCTION REVENUE	ANN	4	.00	.00	148.50	.00	.00	.00	.00	.00	.00	148.50
LABOR PICKUP	MISCELLANEOUS USE	ANN	4	1.80	.00	10.72	13.12	.00	.00	.00	.51	13.62	24.35
PICKUP	MISCELLANEOUS USE	ANN	4	3.00	.00	27.83	25.57	.00	.00	.00	.99	26.56	54.39
INTEREST	ACCUMLATED NET ESTAB COST	ANN	4	.00	.00	342.89	.00	.00	.00	.00	.00	.00	342.89
LAND	NET LAND RENT	ANN	4	.00	.00	210.00	.00	.00	.00	.00	.00	.00	210.00
TAXES	RE TAXES IN YEAR FOUR	ANN	4	.00	.00	55.64	.00	.00	.00	.00	.00	.00	55.64
OVERHEAD	UTILITIES, TELEPHONE, ETC.	ANN	4	.00	.00	.00	.00	.00	.00	60.00	2.33	62.33	62.33
TOTAL PER ACRE				6.65	4.74	860.44	60.03	47.40	1063.75	156.95	24.33	1352.45	2212.90

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

Appendix Table 4c. Material and Service Used by Operation in the Fourth Production Year

Operation	Period	Material and/or Service
Cover Spray	July	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75/gal; \$6.50/acre Aerial Spraying
Insect Control	August	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75/gal; \$6.50/acre Aerial Spraying
Weed Control	March	.375 gal of Treflan @ \$26.89/gal
Spot Spray	April	.13 gal of Formula-40/2,4-D @ \$16.05/gal.
Harvest	April/June	45% of Gross Revenue for a total of \$972.00
Herbicide at Lay-by	June	1.20 lb of Karmex @ \$4.74/lb .63 lb of Sencor @ \$20.82/lb
Fertilize	June	120 lbs of Nitrogen @ \$.21/lb \$6.25 for Custom Fertilize Service
Irrigation	Seasonal	Electricity @ \$32/acre, Irrigation Charge @ \$40.50/acre
Overhead	Annual	Phone, Utilities for a total of \$60/acre

APPENDIX TABLE 5A. ITEMIZED COSTS PER ACRE FOR ESTABLISHING A
40-ACRE ASPARAGUS FIELD - YEAR 5

		PRICE OR		VALUE OR	YOUR
	UNIT	COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
TREFLAN FP	GAL	26.89	.38	10.08	_____
CUT (YR.5)	ACRE	1215.00	1.00	1215.00	_____
FORMULA-40/2,4D	GAL	16.05	.13	2.09	_____
CUSTOM FERT.APP	ACRE	6.25	1.00	6.25	_____
NITROGEN	LB	.21	120.00	25.20	_____
SENCOR	LB	20.82	.63	13.12	_____
KARMEX	LB	4.74	1.20	5.69	_____
CUSTOM IRRIGATE	ACRE	40.50	1.00	40.50	_____
IRR ELECTRICITY	ACRE	32.00	1.00	32.00	_____
TRACTOR REPAIR	ACRE	2.94	1.00	2.94	_____
TRACTOR FUEL/LUBE	ACRE	10.18	1.00	10.18	_____
MACHINERY REPAIRS	ACRE	26.58	1.00	26.58	_____
MACHINE FUEL/LUBE	ACRE	20.32	1.00	20.32	_____
LABOR (TRAC/MACH)	ACRE	47.40	1.00	47.40	_____
INTEREST ON OP. CAP.	ACRE	27.47	1.00	27.47	_____
OVERHEAD	ACRE	60.00	1.00	60.00	_____

TOTAL VARIABLE COST				1598.60	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	2.78	1.00	2.78	_____
TRACTOR INTEREST	ACRE	2.69	1.00	2.69	_____
TRACTOR INSURANCE	ACRE	.19	1.00	.19	_____
TRACTOR TAXES	ACRE	.43	1.00	.43	_____
TRACTOR HOUSING	ACRE	.31	1.00	.31	_____
MACHINE DEPRECIATION	ACRE	53.24	1.00	53.24	_____
MACHINE INTEREST	ACRE	34.25	1.00	34.25	_____
MACHINE INSURANCE	ACRE	2.36	1.00	2.36	_____
MACHINE TAXES	ACRE	5.51	1.00	5.51	_____
MACHINE HOUSING	ACRE	1.66	1.00	1.66	_____
MANAGEMENT FEE	ACRE	148.50	1.00	148.50	_____
INT(YR.4)	ACRE	347.49	1.00	347.49	_____
NET LAND RENT	ACRE	210.00	1.00	210.00	_____
RE TAX 4-15	ACRE	55.64	1.00	55.64	_____

TOTAL FIXED COST				865.04	_____
TOTAL COST				2463.64	_____

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

APPENDIX TABLE 5B. SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A 40-ACRE ASPARAGUS FIELD - YEAR 5

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		
				\$	\$	\$	\$	\$	\$	\$	\$	\$	
INSECT CONTROL	CUSTOM AERIAL SPRAYING	JUL	5	.00	.00	.00	.00	.00	6.50	20.39	1.91	28.80	28.80
INSECT CONTROL	CUSTOM AERIAL SPRAYING	AUG	5	.00	.00	.00	.00	.00	6.50	20.39	1.74	28.63	28.63
BEAT FERNS	60 HP TRACTOR, ROTARY MOWER	MAR	5	.37	.45	4.08	3.53	4.50	.00	.00	.16	8.18	12.26
WEED CONTROL	60 HP TRACTOR, PTO SPRAYER	MAR	5	.15	.18	1.65	1.23	1.80	.00	10.08	.25	13.36	15.01
ROTOVATE	60 HP TRACTOR, 5' ROTOVATOR	MAR	5	.69	.83	7.95	7.16	8.30	.00	.00	.30	15.76	23.71
IRRIGATION	IRRIGATE APRIL TO SEPTEMBER	SEA	5	.00	.50	47.09	4.63	5.00	72.50	.00	3.18	85.31	132.41
CUT	45% OF ANNUAL GROSS REVENUE	APR	5	.00	.00	.00	.00	.00	1215.00	.00	15.69	1230.69	1230.69
SWAMPING	60 HP TRACTOR, TRAILER	APR	5	.44	.54	1.89	3.16	5.40	.00	.00	.11	8.67	10.57
HARVEST	SUPERVISE HARVEST	APR	5	.00	2.00	.00	.00	20.00	.00	.00	.26	20.26	20.26
SPOT SPRAY	60 HP TRACTOR, PTO SPRAYER	APR	5	.05	.06	.55	.41	.60	.00	2.09	.04	3.14	3.68
APPLY HERBICIDE	60 HP TRACTOR, PTO SPRAYER	JUN	5	.15	.18	1.65	1.23	1.80	.00	18.80	.00	21.83	23.48
FERTILIZE	CUSTOM FERTILIZER APPLICATION	JUN	5	.00	.00	.00	.00	.00	6.25	25.20	.00	31.45	31.45
MANAGEMENT FEE	5% OF FULL PRODUCTION REVENUE	ANN	5	.00	.00	148.50	.00	.00	.00	.00	.00	.00	148.50
LABOR PICKUP	MISCELLANEOUS USE	ANN	5	1.80	.00	10.72	13.12	.00	.00	.00	.51	13.62	24.35
PICKUP	MISCELLANEOUS USE	ANN	5	3.00	.00	27.83	25.57	.00	.00	.00	.99	26.56	54.39
INTEREST	ACCUMULATED NET ESTAB COST	ANN	5	.00	.00	347.49	.00	.00	.00	.00	.00	.00	347.49
LAND	NET LAND RENT	ANN	5	.00	.00	210.00	.00	.00	.00	.00	.00	.00	210.00
TAXES	RE TAXES IN YEAR FOUR	ANN	5	.00	.00	55.64	.00	.00	.00	.00	.00	.00	55.64
OVERHEAD	UTILITIES, TELEPHONE, ETC.	ANN	5	.00	.00	.00	.00	.00	.00	60.00	2.33	62.33	62.33
TOTAL PER ACRE				6.65	4.74	865.04	60.03	47.40	1306.75	156.95	27.47	1598.60	2463.64

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

Appendix Table 5c. Material and Services Used by Operation in the Fifth Production Year

Operation	Period	Material and/or Service
Cover Spray	July	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75/gal; \$6.50/acre Aerial Spraying
Insect Control	August	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75/gal; \$6.50/acre Aerial Spraying
Weed Control	March	.375 gal of Treflan @ \$26.89/gal
Spot Spray	April	.13 gal of Formula-40/2,4-D @ \$16.05/gal.
Harvest	April/June	45% of Gross Revenue for a total of \$1215.00
Herbicide at Lay-by	June	1.20 lb of Karmex @ \$4.74/lb .63 lb of Sencor @ \$20.82/lb
Fertilize	June	120 lbs of Nitrogen @ \$.21/lb \$6.25 for Custom Fertilize Service
Irrigation	Seasonal	Electricity @ \$32/acre, Irrigation Charge @ \$40.50/acre
Overhead	Annual	Phone, Utilities for a total of \$60/acre

APPENDIX TABLE 6A. ITEMIZED COSTS PER ACRE FOR ESTABLISHING A
40-ACRE ASPARAGUS FIELD - FULL PRODUCTION

		PRICE OR		VALUE OR	YOUR
	UNIT	COST/UNIT	QUANTITY	COST	FARM

VARIABLE COSTS		\$		\$	
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
AERIAL SPRAYING	ACRE	6.50	1.00	6.50	_____
DISYSTON	GAL	91.61	.13	11.45	_____
SEVIN XLR PLUS	GAL	35.75	.25	8.94	_____
TREFLAN FP	GAL	26.89	.38	10.08	_____
CUT (YR. 6)	ACRE	1336.50	1.00	1336.50	_____
FORMULA-40/2,4D	GAL	16.05	.13	2.09	_____
CUSTOM FERT.APP	ACRE	6.25	1.00	6.25	_____
NITROGEN	LB	.21	120.00	25.20	_____
SENCOR	LB	20.82	.63	13.12	_____
KARMEX	LB	4.74	1.20	5.69	_____
CUSTOM IRRIGATE	ACRE	40.50	1.00	40.50	_____
IRR ELECTRICITY	ACRE	32.00	1.00	32.00	_____
TRACTOR REPAIR	ACRE	2.94	1.00	2.94	_____
TRACTOR FUEL/LUBE	ACRE	10.18	1.00	10.18	_____
MACHINERY REPAIRS	ACRE	26.58	1.00	26.58	_____
MACHINE FUEL/LUBE	ACRE	20.32	1.00	20.32	_____
LABOR (TRAC/MACH)	ACRE	47.40	1.00	47.40	_____
INTEREST ON OP. CAP.	ACRE	29.03	1.00	29.03	_____
OVERHEAD	ACRE	60.00	1.00	60.00	_____

TOTAL VARIABLE COST				1721.66	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	2.78	1.00	2.78	_____
TRACTOR INTEREST	ACRE	2.69	1.00	2.69	_____
TRACTOR INSURANCE	ACRE	.19	1.00	.19	_____
TRACTOR TAXES	ACRE	.43	1.00	.43	_____
TRACTOR HOUSING	ACRE	.31	1.00	.31	_____
MACHINE DEPRECIATION	ACRE	53.24	1.00	53.24	_____
MACHINE INTEREST	ACRE	34.25	1.00	34.25	_____
MACHINE INSURANCE	ACRE	2.36	1.00	2.36	_____
MACHINE TAXES	ACRE	5.51	1.00	5.51	_____
MACHINE HOUSING	ACRE	1.66	1.00	1.66	_____
MANAGEMENT FEE	ACRE	148.50	1.00	148.50	_____
AMORTIZED ESTAB COST	ACRE	577.85	1.00	577.85	_____
NET LAND RENT	ACRE	210.00	1.00	210.00	_____
RE TAX 4-15	ACRE	55.64	1.00	55.64	_____

TOTAL FIXED COST				1095.40	_____
TOTAL COST				2817.07	_____

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

APPENDIX TABLE 6B. SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A 40-ACRE ASPARAGUS FIELD - FULL PRODUCTION

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	VARIABLE COST					TOTAL VARIABLE COST	TOTAL COST
							FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	\$
INSECT CONTROL	CUSTOM AERIAL SPRAYING	JUL	6	.00	.00	.00	.00	.00	6.50	20.39	1.91	28.80	28.80
INSECT CONTROL	CUSTOM AERIAL SPRAYING	AUG	6	.00	.00	.00	.00	.00	6.50	20.39	1.74	28.63	28.63
BEAT FERNS	60 HP TRACTOR, ROTARY MOWER	MAR	6	.37	.45	4.08	3.53	4.50	.00	.00	.16	8.18	12.26
WEED CONROL	60 HP TRACTOR, PTO SPRAYER	MAR	6	.15	.18	1.65	1.23	1.80	.00	10.08	.25	13.36	15.01
ROTOVATE	60 HP TRACTOR, 6' ROTOVATOR	MAR	6	.69	.83	7.95	7.16	8.30	.00	.00	.30	15.76	23.71
IRRIGATION	IRRIGATE APRIL TO SEPTEMBER	SEA	6	.00	.50	47.09	4.63	5.00	72.50	.00	3.18	85.31	132.41
CUT	45% OF ANNUAL GROSS REVENUE	APR	6	.00	.00	.00	.00	.00	1336.50	.00	17.26	1353.76	1353.76
SWAMPING	60 HP TRACTOR, PTO SPRAYER	APR	6	.44	.54	1.89	3.16	5.40	.00	.00	.11	8.67	10.57
HARVEST	SUPERVISE HARVEST	APR	6	.00	2.00	.00	.00	20.00	.00	.00	.26	20.26	20.26
SPOT SPRAY	60 HP TRACTOR, PTO SPRAYER	APR	6	.05	.06	.55	.41	.60	.00	2.09	.04	3.14	3.68
APPLY HERBICIDE	60 HP TRACTOR, PTO SPRAYER	JUN	6	.15	.18	1.65	1.23	1.80	.00	18.80	.00	21.83	23.48
FERTILIZE	CUSTOM FERTILIZER APPLICATION	JUN	6	.00	.00	.00	.00	.00	6.25	25.20	.00	31.45	31.45
MANAGEMENT FEE	5% OF FULL PRODUCTION REVENUE	ANN	6	.00	.00	148.50	.00	.00	.00	.00	.00	.00	148.50
LABOR PICKUP	MISCELLANEOUS USE	ANN	6	1.80	.00	10.72	13.12	.00	.00	.00	.51	13.62	24.35
PICKUP	MISCELLANEOUS USE	ANN	6	3.00	.00	27.83	25.57	.00	.00	.00	.99	26.56	54.39
ESTAB COST	AMORTIZED NET ESTAB COST	ANN	6	.00	.00	577.85	.00	.00	.00	.00	.00	.00	577.85
LAND	NET LAND RENT	ANN	6	.00	.00	210.00	.00	.00	.00	.00	.00	.00	210.00
TAXES	RE TAXES IN YEAR 5	ANN	6	.00	.00	55.64	.00	.00	.00	.00	.00	.00	55.64
OVERHEAD	UTILITIES, TELEPHONE, ETC.	ANN	6	.00	.00	.00	.00	.00	.00	60.00	2.33	62.33	62.33
TOTAL PER ACRE				6.65	4.74	1095.40	60.03	47.40	1428.25	156.95	29.03	1721.66	2817.07

NOTE: PRODUCTION YEAR BEGINS JULY 1ST AND ENDS JUNE 30TH

Appendix Table 6c. Material and Services Used by Operation in the Sixth Production Year

Operation	Period	Material and/or Service
Cover Spray	July	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75/gal; \$6.50/acre Aerial Spraying
Insect Control	August	.13 gal of Disyston @ \$91.61/gal., .25 gal of Sevin @ \$35.75/gal; \$6.50/acre Aerial Spraying
Weed Control	March	.375 gal of Treflan @ \$26.89/gal
Spot Spray	April	.13 gal of Formula-40/2,4-D @ \$16.05/gal.
Harvest	April/June	45% of Gross Revenue for a total of \$1336.5
Herbicide at lay-by	June	1.20 lb of Karmex @ \$4.74/lb .63 lb of Sencor @ \$20.82/lb
Fertilize	June	120 lbs of Nitrogen @ \$.21/lb \$6.25 for Custom Fertilize Service
Irrigation	Seasonal	Electricity @ \$32/acre, Irrigation Charge @ \$40.50/acre
Overhead	Annual	Phone, Utilities for a total of \$60/acre

APPENDIX TABLE 7A. HOURLY OR PER ACRE MACHINERY COSTS FOR A 40-ACRE ASPARAGUS FIELD

MACHINERY	PURCHASE PRICE	YEARS		DEPREC- IATION	INTER- EST	INSUR- ANCE	TAXES	HOUSING	TOTAL FIXED COST	REPAIR	FUEL AND LUBE	TOTAL VARIABLE COST	TOTAL COST
		TO TRADE	ANNUAL HOURS										
	\$								-----COST PER HOUR-----				
105HP TRACTOR	57,500.00	15	1000	3.09	2.99	.21	.48	.34	7.11	3.18	6.67	9.85	16.95
60 HP TRACTOR	30,500.00	15	1200	1.36	1.32	.09	.21	.15	3.14	1.45	5.00	6.45	9.59
3/4 TON PICKUP	26,000.00	4	650	6.00	2.44	.17	.39	.28	9.28	4.96	3.57	8.52	17.80
PLOW MOLDBOARD	10,250.00	10	200	4.22	2.62	.18	.42	.30	7.75	3.63	.00	3.63	11.37
13' TANDEM DISK	9,500.00	15	100	5.73	4.53	.31	.73	.52	11.82	3.08	.00	3.08	14.90
4-RW CULTIVATOR	5,000.00	15	120	2.51	1.99	.14	.32	.23	5.18	1.71	.00	1.71	6.90
6' ROTOVATOR	6,400.00	10	120	4.39	2.73	.19	.44	.31	8.06	3.29	.00	3.29	11.35
12' ROLL HORROW	10,000.00	15	100	6.03	4.77	.33	.77	.55	12.44	3.24	.00	3.24	15.68
4-RW PLANTER	13,000.00	12	60	15.56	10.73	.74	1.73	1.23	29.99	4.33	.00	4.33	34.32
10' ROTARY MOWER	5,000.00	10	100	4.17	2.53	.17	.41	.29	7.58	2.43	.00	2.43	10.02
150G PTO SPRAYER	2,500.00	10	50	4.06	2.58	.18	.42	.30	7.53	1.08	.00	1.08	8.61
SWAMPING CART	340.00	15	50	.45	.30	.02	.05	.03	.85	.09	.00	.09	.94
2-RW LILLISTON	3,750.00	15	100	2.25	1.79	.12	.29	.21	4.66	1.23	.00	1.23	5.89
LABOR PICKUP	10,500.00	8	300	3.50	1.83	.13	.29	.21	5.96	1.94	5.35	7.29	13.24
			ACRES						-----COST PER ACRE-----				
SIDE ROLL SYSTEM	18,200.00	20	40	22.75	19.79	1.37	3.19	.00	47.09	4.63	.00	4.63	51.72

APPENDIX TABLE 7B. EQUIPMENT DATA*

MACHINERY	PURCHASE PRICE (\$)	YEARS OF USE	SALVAGE VALUE	ANNUAL HOURS OF USE
105 HP TRACTOR	57,500	15	11,195	1,000
60 HP TRACTOR	30,500	15	5,938	1,200
3/4 TON PICKUP	26,000	4	10,400	650
PLOW MOLDBOARD	10,250	10	1,812	200
13' TANDEM DISK	9,500	15	912	100
4-RW CULTIVATOR	5,000	15	480	120
6' ROTOVATOR	6,400	10	1,132	120
12' ROLL HARROW	10,000	15	960	100
4-RW PLANTER	13,000	12	1,801	60
10' ROTARY MOWER	5,000	10	826	100
150G PTO SPRAYER	2,500	10	471	50
SWAMPING CART	340	15	0	50
2-RW LILLISTON	3,750	15	375	100
LABOR PICKUP	10,500	8	2,100	300
				ANNUAL ACRES OF USE
SIDE ROLL SYSTEM	18,200	20	0	40

*Annual repair cost and fuel use per hour are calculated by using machine parameter.