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COST OF ESTABLISHING AND PRODUCING
SWEET CHERRIES IN CENTRAL WASHINGTON
IN 1998

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PREFACE

Enterprise costs and returns vary from one location to the next and over time for any particular farming operation. Variability stems from differences in the following:

- Capital, labor, and natural resources
- Type and size of machinery complement
- Cultural practices
- Size of farm enterprise
- Crop yields
- Input prices
- Commodity prices
- Management skill

Costs can also be calculated differently depending on the intended use of the cost estimate. The information in this publication serves as a general guide for establishing and producing sweet cherries in central Washington. To avoid drawing unwarranted conclusions for any particular farm or group of farms, the reader must closely examine the assumptions used. If they are not appropriate for the situation under consideration, adjustments in the costs and/or returns should be made.

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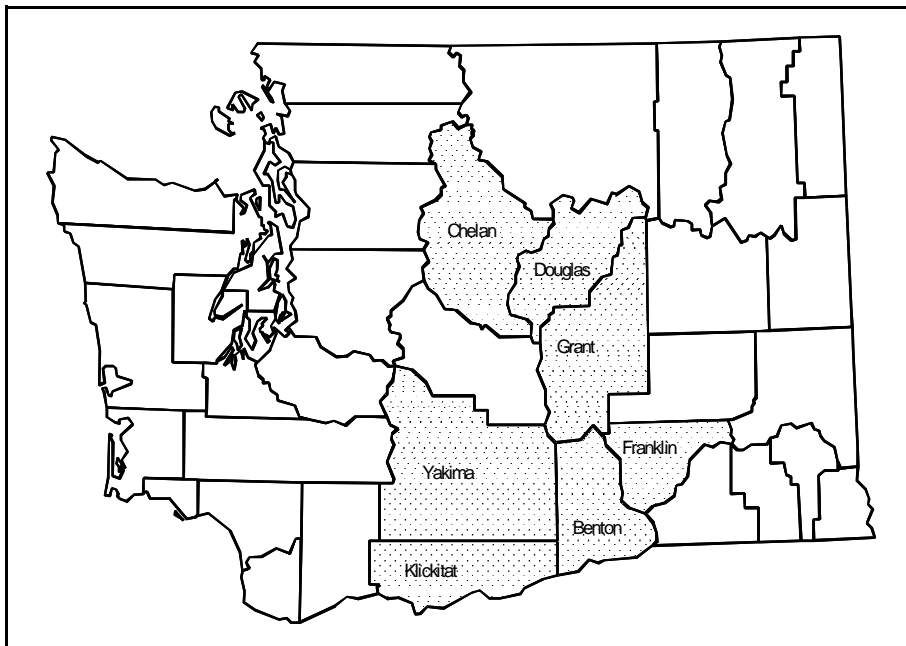
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COST OF ESTABLISHING AND PRODUCING SWEET CHERRIES IN CENTRAL WASHINGTON IN 1998

Herbert Hinman and Jack Watson¹

Introduction

Sweet cherries are one of Washington State's major agricultural commodities and the third leading tree fruit crop in the state. In 1996, there were 15,000 acres of bearing sweet cherries in the state (Washington Agricultural Statistics, 1996-97). Over the last ten years (1987 to 1996) bearing sweet cherry acreage in the state has increased 2,800 acres. This growth trend has been a rather steady increase, averaging about 2.5% per year, and is expected to continue throughout the 1990s. The sweet cherry orchard acreage within the state is located almost entirely in the arid central region east of the Cascade Mountains. Central Washington counties of Yakima, Benton, Franklin, Klickitat, Chelan, Douglas, and Grant account for 95% of the acreage. Yakima and Chelan counties are the largest growing areas in the state. According to the 1992 Census of Agriculture, 34 percent of the state's acreage was in Yakima County and 18 percent was located in Chelan County. The next three counties in terms of acreage were Benton, Douglas, and Franklin.



Central Washington
Primary Cherry Producing Counties

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While production varies from year to year depending on the weather, Washington State ranks first in the nation, producing about 40% of the total U.S. crop (Washington Agricultural Statistics, 1996-1997). Although most Washington sweet cherries go to the fresh market, some tonnage is canned, brined, or utilized as juice. In 1996, 7 percent of Washington's sweet cherry crop was canned, 13 percent was brined, and 7 percent went to juice. The dominant cultivar is Bing with smaller amounts of Lambert, Rainier, and Van. Other cultivars are grown in limited quantities, largely as pollenizer trees.

Objectives and Limitations of the Study

The assumption is made that 10 acres of sweet cherries are being planted into an existing orchard of 50 acres of apples and 10 acres of cherries. The objective of this study is to project what such a planting would require in the way of equipment, materials, supplies, and labor to establish the orchard and to maintain it as a mature orchard. A further objective of this study is to estimate what prices and yields must be obtained to make the establishment and production of sweet cherries a profitable venture.

Many factors can alter not only establishment and production costs but also pack-out and returns. Due to the assumptions and sources of information used, the values reported in this publication represent what knowledgeable and skilled fruit growers might anticipate to be their average cost and production over the life of the orchard. It should be realized, however, that crop loss due to cold injury or rain should be anticipated periodically in this area. We recommend that individual growers use the blanks provided on the right-hand side of various budget tables to estimate their own costs and returns. The primary value in a report of this kind is to identify the practices typical of a modern and well-managed sweet cherry orchard. While this publication does not represent the average grower and is not intended to be a guide to production practices, it does indicate current trends. As such, it should be helpful in estimating the physical and financial requirements of comparable plantings.

Sources of Information

The assumptions used in this study were obtained from a group of experienced fruit growers with sizable plantings in central Washington. Their production practices and requirements for labor, equipment, and supplies are the basis for the assumptions used in this study and represent what this group of fruit growers consider to be the latest developments. Central Washington suppliers provided information on current prices for machinery,

equipment, custom operations, chemicals, and power. The Benton County Assessor's Office provided the estimates of land prices and property taxes.

Budget Assumptions

The assumptions used in this report are the following:

1. A new 10-acre planting of Bing sweet cherries on Mazzard or Mahaleb seedling rootstock is added to an existing orchard operation of 50 acres of apples and 10 acres of cherries. Life of the planting is estimated to be 25 years.
2. The trees are planted 10 feet x 16 feet, or 272 trees per acre. The main variety, Bing sweet cherries, consists of 242 trees. The remaining 30 trees in the acre, planted every third tree in every third row, are Van pollenizers. The trees are to be trained into 3-leader trees. While there is keen interest in new dwarfing rootstocks and ultra high planting densities, the grower committee was not willing to commit to these new rootstocks and planting systems without some commercial experience.
3. At the end of the seventh year (beginning of the eighth year), one-half of the trees are removed making the planting 20 feet x 16 feet with 136 trees (121 Bings and 15 Vans).
4. The trees are planted on an open field suitable for machine planting.
5. Irrigation water is available from a public irrigation district. A permanent under tree sprinkler system with a sprinkler setting of 32 x 20 and a 25-year life, is installed at a cost of \$2,150 per acre. Pressurized water is delivered to the orchard at a power and water cost of \$120 per acre.
6. A 125-horsepower propane-driven wind machine is installed in the early spring of year 4 at a cost of \$16,000. This wind machine serves the entire 10 acres and has an estimated life of 22 years (the remaining life of the orchard).
7. A holding pond for frost control purposes for the 10 acres is established in year 5. The pond costs \$5,000 and has a 21 year life.

8. Machinery and buildings are valued at costs incurred if the items were to be replaced. Items are valued at new or used replacement value depending on how they are typically replaced. While this may overstate current production costs, it provides an indication of the enterprise's ability to generate the earnings needed to replace depreciable assets. Continuing increases in prices mean that depreciation claimed on assets purchased prior to price advances understates the amount of capital required for asset replacement. When an enterprise is evaluated to determine its long-run viability, it is important to consider its ability to replace depreciable assets on a replaceable cost basis.
9. Land is valued at \$5,000 per acre. An 8% return to land is desired, in addition to any appreciation in land values.
10. Interest is 8.5%.
11. Yields:
- | | Bing Cherries | Van Cherries |
|--------|-----------------|-----------------|
| Year 4 | 1.335 tons/acre | 0.165 tons/acre |
| Year 5 | 2.670 tons/acre | 0.330 tons/acre |
| Year 6 | 4.450 tons/acre | 0.550 tons/acre |
| Year 7 | 6.230 tons/acre | 0.770 tons/acre |
| Year 8 | 4.673 tons/acre | 0.577 tons/acre |
| Mature | 7.120 tons/acre | 0.880 tons/acre |
- Yields in year 8 dropped 25% from the previous year due to every other tree being pulled.
12. Price received by the farmers is \$1,100/ton for Bings and \$900/ton for Vans. This price reflects the returns from all cherries (fresh, canned, and briners).

Gross Returns Per Acre

Year 4	\$1,617
Year 5	\$3,234
Year 6	\$5,390
Year 7	\$7,546
Year 8	\$5,660
Mature	\$8,624

13. Labor and management charges are the following including all benefits, i.e., social security, labor and industries, etc.:

Crew leader	\$ 15.00/hour
Tractor driver	10.00/hour
Casual labor	7.00/hour

Summary of Results

Table 1 presents the estimated annual capital requirements in land, irrigation system, operating expenses, and new equipment purchased as a direct consequence of adding 10 acres of cherries to an existing 60-acre orchard operation. Since the 10-acre planting of cherries was added to an existing orchard, most field equipment, buildings, and vehicles required to operate this additional 10 acres are likely to be on hand already. Therefore, the only equipment purchases listed as a direct result of orchard expansion are the irrigation system, holding pond, wind machine, alarm, and thermometers. Where the situation differs from the above assumptions, adjustments in the figures presented in Table 1 may be necessary. It was assumed all items were purchased the year they are first used. Of course, the actual timing of the capital outlays will vary, depending on how the various assets are financed.

Where Table 1 presents a summary of the cash requirements over the first 8 years of establishment, Table 2 on page 7 presents a per acre summary of the costs involved during the 8-year period needed to fully establish the orchard. The establishment costs are categorized as to variable, fixed, and total costs. While variable cost essentially reflects cash input costs incurred and used the year of purchase (trees being the exception), fixed costs reflect the cost of inputs that are purchased, or already owned, that have a life of more than one year. Therefore, some of the up-front cash costs such as land, the irrigation system, and the wind machine are allocated over the life of the cherry orchard and do not show as a 1-year cost obligation as shown in Table 1. See "Detailed Results" on page 11 for a description as to how variable and fixed costs are allocated within the yearly budgets.

After year 8, the assumption is made that the orchard is fully established. At this point it is assumed that the orchard has 17 more years of productive life with an average annual yield of 8 tons per acre. Over these remaining years, the orchard must pay back the \$14,055 cost per acre incurred in establishing this orchard. Thus, assuming an 8.5% interest rate and a 17-year pay-back period, the mature orchard has an amortized establishment

Table 1: Summary of Capital Requirements Per Year for Establishing 10 Acres of Cherries in Central Washington.^a

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	\$	\$	\$	\$	\$	\$	\$	\$
Requirements:								
Land (10 Acres)	50,000	-	-	-	-	-	-	-
Irrigation System	21,500	-	-	-	-	-	-	-
Equipment ^b	-	-	-	16,205	5,000	-	-	-
Operating Expenses ^c	32,795	13,932	15,558	25,819	30,949	37,896	44,788	41,402
Total Requirements	104,295	13,932	15,558	42,024	35,949	37,896	44,788	41,402
Receipt ^d	-	-	-	16,170	32,340	53,900	75,460	56,600
New Yearly Requirements	104,295	13,932	15,558	25,854	3,609	-16,004	-30,672	-15,198

^a Does not include interest on investment.

^b One wind machine and a frost alarm with 4 thermometer stations in year 4 and a holding pond in year 5. Any other field equipment that may be purchased as a result of this additional 10 acres of cherries being added to the existing orchard are not listed.

^c Includes variable costs, land taxes, and prorated taxes and insurance on equipment and buildings (see Tables 7A through 7H in the Appendix).

^d See assumptions 10 and 11 on page 5.

Table 2: Per Acre Cost of Establishing a Sweet Cherry Orchard

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	\$	\$	\$	\$	\$	\$	\$	\$
Variable Cost:								
Custom Soil Prep.	186.00	-	-	-	-	-	-	-
Trees	1496.00	33.00	22.00	16.50	-	-	-	-
Custom Planting	108.80	-	-	-	-	-	-	-
Cut/Remove Trees	-	-	-	-	-	-	-	408.00
Fertilizer	59.00	61.25	26.25	47.25	47.25	47.25	47.25	47.25
Chemicals	186.88	28.12	68.45	204.21	224.19	244.19	244.19	244.19
Beehives	-	-	-	35.00	52.50	52.50	52.50	52.50
Labor	366.56	515.25	663.95	773.75	713.99	713.99	713.99	544.99
Irrig/Electric Charge	120.00	120.00	120.00	120.00	135.00	135.00	135.00	135.00
Machinery Cost	96.18	106.74	112.17	225.61	244.32	244.32	244.32	243.18
Harvest Cost	-	-	-	495.00	990.00	1650.00	2310.00	1732.50
Aerial Applications	-	-	-	45.00	45.00	45.00	45.00	45.00
Other	43.05	19.20	24.80	24.80	29.60	29.60	29.60	21.60
Overhead	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00
Interest	<u>163.46</u>	<u>56.59</u>	<u>64.12</u>	<u>96.38</u>	<u>106.85</u>	<u>121.59</u>	<u>135.61</u>	<u>144.86</u>
Total Variable Cost	3225.93	1340.15	1501.74	2483.50	2988.70	3683.44	4357.46	4019.07
Fixed Cost:								
Machine Cost	348.53	344.37	356.80	563.53	634.44	634.44	634.44	630.87
Land Taxes	27.27	27.27	27.27	42.42	42.42	42.42	57.57	57.57
Interest on Land	400.00	400.00	400.00	400.00	400.00	400.00	400.00	400.00
Estab Cost Interest	-	<u>340.15</u>	<u>548.56</u>	<u>789.48</u>	<u>1015.75</u>	<u>1172.77</u>	<u>118.93</u>	<u>144.34</u>
Total Fixed Cost	775.80	1111.79	1332.63	1795.43	2092.61	2249.63	2310.94	2232.78
Total Cost	4001.74	2451.94	2834.37	4278.93	5081.31	5933.07	6668.40	6251.85
Value of Production	-	-	-	1617.00	3234.00	5390.00	7546.00	5659.50
Net Cost	4001.74	2451.94	2834.37	2661.93	1847.31	543.07	-877.60	592.35
Accumulated Cost	4001.74	6453.68	9288.05	11949.98	13797.29	14340.36	13462.76	14055.11

cost of \$1,592.61 per acre per year that must be recovered. Table 3 presents a per acre summary of the costs involved in producing sweet cherries in a mature cherry orchard.

Table 3: Cost of Producing Sweet Cherries in a Mature Cherry Orchard

	\$
Variable Costs:	
Fertilizer	47.25
Chemicals	244.19
Beehives	52.50
Labor	712.94
Irrig/Electric Charge	135.00
Machine Cost	254.62
Harvest Cost	2,640.00
Aerial Applications	45.00
Paint	12.00
Mouse Control	12.00
Overhead	400.00
Interest	<u>142.71</u>
Total Variable Cost	4,698.21
Fixed Costs:	
Machine Cost	649.52
Land Taxes	72.72
Interest on Land	400.00
Amortized Estab. Cost	<u>1,592.61</u>
Total Fixed Cost	2,714.85
Total Cost	7,413.06

As shown in Table 3, the total variable cost of producing sweet cherries in a mature cherry orchard, under the given assumptions, is \$4,698.21, with the total cost of production being \$7,413.06. Given a yield of 8 tons per acre and a weighted average price of \$1,078 per ton for the Bing and Van cherries produced, per acre returns over variable cost are \$3,925.79.

Returns over total cost, which represent returns to management and risk, are \$1,210.94.

Receipts:	\$8,624.00
Variable Cost:	<u>4,698.21</u>
Returns Over	
Variable Cost:	3,925.79
Fixed Cost:	<u>2,714.85</u>
Returns to Management	
and Risk:	\$1,210.94

Price and Yield Analysis

As stated from the beginning, this study represents what knowledgeable fruit growers might anticipate from plantings of sweet cherries over their productive life. To be of practical use to potential investors, the assumptions used in this study require careful study. In the calculations to determine profitability per acre a production level of 1.5 tons in year 4, 3 tons in year 5, 5 tons in year 6, 7 tons in year 7, 5.25 tons in year 8 (half the trees are pulled at the end of year 7), and 8 tons per acre during the mature production years was assumed. This is what experienced growers calculate they can average. However, for the inexperienced grower or absentee investor, this production level may be unrealistic. It must also be stressed that due to cold temperature and rain cracking, yields can be quite variable from year to year. Furthermore, cherry prices have also been quite variable from year to year. Therefore, to help investors better analyze their potential situation, Table 4 presents the accumulated cost after eight years of establishment and the profit for the mature years at 50, 60, 70, 80, 90, and 100% of the base production level. Also presented in Table 4 is the break-even yield the producer must average in the mature years in order to break even at the given price level if yields during the first eight establishment years produced at the percentage of the base production level under investigation. At break-even price and yield combinations, the producer covers all out-of-pocket expenses plus realizes a competitive return to equity capital invested in land, trees, equipment, and buildings. In addition, the producer receives \$15 per hour for supervisory labor, \$10 per hour for tractor and machine labor, and \$7 per hour for casual labor he/she provides to the maintenance and operation of the cherry orchard. Failure to obtain break-even returns means that the producer will not receive a return on capital contributions, labor, or management equal to what could be earned in an alternative use. Attainment of a return above break-even returns means that in addition to covering all cash and opportunity costs, the producer receives a return to management and risk.

The significance of Table 4 is it illustrates if a producer does not receive the price and/or yields expected when the orchard is established, a high density cherry orchard operation can become a very expensive venture. For instance, if only 50% of the base production level is achieved during the eight establishment years and during the mature years of orchard life, with an average price of \$1,000 per ton being received by the producer, after the eighth year of establishment, the producer has \$24,145 per acre invested and loses \$3,208 annually during the mature years. At a price of \$1,000 per ton, the producer would have to average 8.84 tons per acre for the following 17 years to break even over the 25-year life of the orchard.

Table 4: Eight-Year Accumulated Net Cost of Establishing a Sweet Cheery Orchard and Expected Profits in the Mature Years at Different Price and Yield Levels, including Break-Even Yield Levels for the Mature Years.

Average Price/Ton	\$1000			\$1,050			\$1,078**		
Percent of Base Yields*	Accumulated 8-Year Net Cost	Annual Profit in Mature Years	Break-Even Yield for Mature Year	Accumulated 8-Year Net Cost	Annual Profit in Mature Years	Break-Even Yield for Mature Year	Accumulated 8-Year Net Cost	Annual Profit in Mature Years	Break-Even Yield for Mature Year
50	24,145	-3,208	8.84	23,529	-2,939	8.12	23,184	-2,788	7.76
60	22,512	-2,493	8.56	21,772	-2,169	7.84	21,359	-1,988	7.48
70	20,878	-1,777	8.28	20,015	-1,400	7.56	19,533	-1,188	7.20
80	19,244	-1,062	8.00	18,259	-630	7.28	17,707	-388	6.92
90	17,610	-346	7.72	16,502	139	7.00	15,881	411	6.65
100	15,977	369	7.44	14,745	909	6.73	14,055	1,211	6.37
Average Price/Ton	\$1,100			\$1,150			\$1,200		
Percent of Base Yields*	Accumulated 8-Year Net Cost	Annual Profit in Mature Years	Break-Even Yield for Mature Year	Accumulated 8-Year Net Cost	Annual Profit in Mature Years	Break-Even Yield for Mature Year	Accumulated 8-Year Net Cost	Annual Profit in Mature Years	Break-Even Yield for Mature Year
50	22,913	-2,669	7.50	22,297	-2,399	6.95	21,681	-2,129	6.47
60	21,033	-1,845	7.22	20,294	-1,522	6.67	19,555	-1,198	6.19
70	19,153	-1,022	6.94	18,291	-644	6.39	17,428	-266	5.91
80	17,273	-199	6.66	16,287	233	6.11	15,301	665	5.63
90	15,393	625	6.38	14,284	1,111	5.83	13,175	1,596	5.35
100	13,512	1,448	6.10	12,280	1,988	5.55	11,048	2,528	5.07

* Base Yields: Year 1-3, 0 Tons; Year 4, 1.5 Tons; Year 5, 3.0 Tons; Year 6, 5.0 Tons; Year 7, 7.0 Tons; Year 8, 5.25 Tons; Mature Year, 8 Tons.

**Weighted average price used in initial study.

On the other hand, if yields are as expected and one does receive reasonable prices for their product, a high density cherry orchard can be a very profitable enterprise. For instance, if the yields for the first eight years of orchard life and the mature years are as given in the original assumptions and the average price per ton received by the producer is \$1,200, after the eighth year the producer has \$11,048 per acre invested in the orchard and clears an annual profit of \$2,528 per acre. To break even during the mature years the producer needs an average production level of 5.07 tons over the remaining 17-year life of the orchard.

The implications of other price and yield scenarios can be derived from close examination of Table 4. However, Table 4 does not present results from extreme variability in yield that can result for the individual producer due to the susceptibility of cherries to freeze and rain damage. The potential investor must be fully aware of the possible consequences resulting from these potential wide variations in yields when making an investment decision.

Detailed Results

The detailed estimated costs for each year of establishment plus that for the mature orchard are shown in the Appendix. Tables 5A through 5I outline the schedule of field operations and per acre cost by calendar month, the type of machinery and labor used, and the hours used per acre for the cherry orchard for each of the eight establishment years and for the mature orchard. The costs of field operations are divided into two categories—fixed and variable. Fixed costs include annual cost of machinery, building, irrigation equipment, and land ownership. Variable costs include such costs as those associated with operating machinery, hiring labor, and purchasing services and materials. Total cost is the sum of fixed costs and variable costs.

Machinery, building, and irrigation system fixed costs include depreciation, interest on the average investment, property taxes, and insurance. These costs are incurred whether or not a crop is grown and do not vary, given ownership of a specific equipment and building complement. Per hour fixed costs for machinery were determined by dividing the total annual fixed cost per machine by the annual hours of machinery use for the representative farm. Machinery fixed costs for a specific field operation were determined by multiplying the machine hours per acre times the per hour machinery fixed cost figure (see Table 9). Fixed costs per acre for the machine shed and shop, shop tools, wind machine, and irrigation system were determined by dividing the total annual fixed cost by the number of acres.

Land fixed cost includes taxes and an 8% return on the purchase price of the land. This cost represents the minimum return the owner-operator desires on his/her original investment in land, apart from appreciation of land value. As used in this publication, the land cost is termed an opportunity cost to indicate that it is not an out-of-pocket expense, but rather a return that is foregone by the producer as a result of investing in this enterprise.

Beginning with year 2, a fixed cost of 8.5% of the previous year's accumulated establishment cost is charged against the investment. This cost represents the interest being paid on the investment in the cherry orchard, or returns foregone by investing in the cherry orchard rather than in an alternative investment that would give immediate returns.

Variable costs vary with the number of acres farmed or with the enterprise. These costs include fuel, oil, repairs, fertilizer, chemicals, custom work, overhead (utilities, legal and accounting fees, etc.), and interest (8.5%) on operating capital. Hand labor and machinery operating labor were also included as variable costs.

In Tables 5A through 5I, which show the schedule of operation and estimated cost per acre for each of the establishment years and for the mature orchard, figures representing the cost of services and/or materials utilized by operation are shown in their respective columns. Tables 6A through 6I present by year, month, and operation, the services and/or materials that went into the calculation of these figures for each respective Table 5.

Appendix tables 7A through 7I present an itemized list of the costs in each respective Table 5. Most items are self-explanatory or have been explained previously. However, "Tractor Interest" and "Machinery Interest"² warrant additional explanation. These values represent opportunity costs (returns that are foregone by investment in a given machinery, building, and irrigation complement rather than in alternative investments) or interest paid to finance the given machinery, building, and irrigation complement, or both. The 8.5% interest charge made against the average value of these items over their respective lives represents total interest costs. These interest costs are fixed costs and their per hour and per acre allocations were calculated in the manner previously described for building, irrigation, and machinery fixed cost.

²Machinery interest includes interest on the machine shed and shop, wind machine, and the irrigation system.

In describing the production practices below for the various years, please note that the production year runs from November 1 through October 31.

First Year of Establishment (Tables 5A-7A)

It was assumed the land was in crop production prior to establishing the orchard. On that basis, the pre-plant operations normally consist of ripping the ground, fumigating with Vapam through portable irrigation handlines, fertilizing, and disking twice before marking the tree rows. A solid set under tree irrigation system was installed at an approximate cost of \$2,150 per acre. Rainfall in central Washington is limited; therefore, about 40 acre inches of irrigation water is required per year, from May through August.

Two major issues influence planting design and establishment costs. Foremost is the number of years (8) required to bring cherries into full production. This has required increasing the number of trees per acre in order to maximize early returns and minimize the total costs of establishment. This study seeks maximum early production by establishing trees on a spacing of 10 by 16 feet, 272 trees per acre, with the intention of removing every other tree at the end of the seventh year. A second issue is the requirement to interplant blocks of trees with a second cultivar essential for cross-pollination and fruit set. The main variety, Bing cherries, being self-unfruitful, must be cross-pollinated with the interplanted Van cultivar, set every third tree in every third row. This cross-pollination is done by bees brought into the orchard at blossom time.

Table 5A outlines the schedule of field operations by calendar month, the type of machinery and labor used, and the hours used per acre for the cherry orchard during the first year of establishment. Nitrogen is hand applied to each individual tree during this period. To prevent damage to the young tree in the first year, the area between the trees is disced while the area around each tree is hand weeded. A cover crop of Companion grass is seeded in September.

Table 5A reports under the "Service" and "Materials" columns the dollar amounts spent on services and materials used with the different operations. Table 6A lists, by operation, the specific types and quantities of services and materials used along with their respective 1998 prices.

Table 7A presents a summary of the costs, totaling \$4,002 per acre, experienced during the first year of establishment.

Second Through the Fourth Year (Tables 5B-7D)

Tree replacements average about six trees per acre in the second year and four trees per acre in the third year. Beginning with year 2, tree trunks are painted and tree training begins with branch promotion and the selection and removal of shoots. A rotary mower is used to control weeds between and around trees. In year 3, orchardists typically apply one mildew spray and one fruit fly spray. At the end of year 3/beginning of year 4, a wind machine for frost control, that covers the entire 10 acres, is installed at an approximate cost of \$16,000. Also, copper sulfate is sprayed on the trees in November to control bacterial canker. During year 4, approximately three trees per acre have to be replaced. Fruit production of approximately one and one-half tons per acre beginning in year 4 necessitates the rental of one beehive per acre. As the trees start to produce fruit, less emphasis is on tree training and more on pruning, controlling tree growth, and controlling orchard pests. The spray program consists of a copper sulfate spray, a dormant insecticide spray, three mildew sprays, and six cherry fruit fly sprays. Leaf feeds are frequently applied with the insect and disease sprays.

By year 4 the annual fertilizer, herbicide, and rodent control programs are established with 75 pounds of nitrogen applied in November and 60 pounds applied in March. Both applications are made with a ground applicator. In March, zinc is applied with the dormant spray. A herbicide strip down each row is applied in May, July, and October. Grass and weeds between the rows require approximately four mowings per year. Gopher control requires hand application of Gastoxin tablets throughout the year while mouse control requires at least one aerial spraying during the year.

Sweet cherries are harvested during June and July. The need to market sweet cherries with stems attached requires the use of hand labor. The small fruit size and relatively short harvest period for any given cultivar dictates the use of large numbers of harvest workers and fairly well defined harvest practices.

Fifth and Sixth Year (Tables 5E-7F)

Orchardists expect to obtain approximately three tons of cherries per acre from trees in their fifth year of growth and five tons of cherries in their sixth year. At the end of year 4/beginning of year 5 a holding pond for irrigation water, at a cost of \$5,000 for the ten acres, is constructed so the underground sprinkler system can be used, along with the wind machine, in controlling frost damage. The spray program remains the same as that for year 4 with the exception of the quantities increasing

due to an increase in canopy cover and a GA spray being added in May. With increased production, approximately one and one-half beehives per acre are used in the orchard for pollination purposes.

Seventh and Eighth Year (Tables 5G-7H)

With the exception of changing quantities, the spray program remains the same as in the previous two years for both years 7 and 8. In year 7 the expected production is approximately 7 tons per acre. At the end of year 7/beginning of year 8, one-half of the trees are pulled to eliminate overcrowding and allow for increasing canopy cover from the remaining 136 trees. This pulling of trees sets back the production for year 8 to approximately 75% of year 7 production.

The Mature Orchard (Tables 5I-7I)

In the mature orchard, the trees are pruned during the dormant period with no summer pruning. Prunings are gathered and chopped up with a brush windrower and rotary mower, except where large limbs must be cut up with a chainsaw and removed. Except for quantity changes, the spray program remains the same as for years 7 and 8. Expected production is 8 tons per acre; however, crop loss due to cold injury or rain should be anticipated to occur periodically.

Machinery, Building, and Input Costs

Table 8 identifies the machine and building complement used to derive machinery and building cost estimates. It includes the type of machines and buildings used, their current replacement value (new or used), years of use before trade-in, salvage value at trade-in, annual repair cost, and annual hours of use. The data in this table are used to estimate per-hour or per-acre fixed and variable costs appearing in Table 9.

Machinery and building fixed costs include depreciation and interest on investment, property taxes, and insurance—costs that do not vary with use. Note that interest on investment represents a 8.5% opportunity cost to the enterprise. These are earnings foregone by investing money in the machinery and building complement rather than in the next best alternative investment. This may also represent the interest paid on funds borrowed to finance machinery purchases.

Machinery and building variable costs include repair, fuel, and lubrication costs—costs that vary with use.

Table 10 lists the prices used for fuel, fertilizer, chemicals, tree stock, and other selected inputs used in deriving these budgets.

Concluding Note

Due to the procedures and assumptions used in this study, the results should be used with care. It was recognized by the growers and authors that the situation outlined is not characteristic of all orchard or farm operations. For example, economies were gained by adding this acreage onto an existing farm operation. Conversely, added costs can be anticipated when the planting represents a separate business enterprise. Furthermore, in planting a given acreage, the dimensions of the field, topography, and the need for roads reduces the number of actual acres of orchard. The need for windbreaks, buildings, and service areas may reduce the area planted even further.

It is essential this publication be used merely as a guide in determining establishment and mature orchard maintenance costs and that considerable judgment be exercised in generalizing cost estimates to situations differing from those outlined above. Moreover, this publication is not specifically intended as a guide to planting and production practices. Rather, it represents the current technology used in the area.

APPENDIX

Detailed Cost and Production

Practice Information

TABLE 5A: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - 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.		
						\$	\$	\$	\$	\$	\$	\$
SOIL SAMPLE	CUSTOM HIRE	FALL 1997	.00	.00	.00	.00	.00	12.00	.00	.94	12.94	12.94
RIP GROUND	CUSTOM HIRE	FALL 1997	.00	.00	.00	.00	.00	100.00	.00	7.79	107.79	107.79
FUMIGATE	PORTABLE HANDLINES PLUS LABOR	FALL 1997	.00	.00	.00	.00	.00	70.00	156.88	17.68	244.56	244.56
BROADCAST FERT.	52HP-WT, RENTED SPREADER	FALL 1997	.50	.60	3.10	1.66	6.00	4.00	50.25	4.82	66.73	69.83
DISK	52HP-WT, 9' DISK	FALL 1997	.50	.55	8.61	2.76	5.50	.00	.00	.64	8.90	17.50
DISK	52HP-WT, 9' DISK	FEB 1998	.50	.55	8.61	2.76	5.50	.00	.00	.47	8.72	17.33
LAYOUT & STAKE	50HP-WT, MARKER	FEB 1998	.25	.50	1.55	.83	4.40	.00	2.00	.41	7.64	9.19
PLANT TREES	CUSTOM HIRE	FEB 1998	.00	.00	.00	.00	.00	108.80	1496.00	90.94	1695.74	1695.74
PAINT TREE TRUNK	HAND LABOR	MAR 1998	.00	2.40	.00	.00	16.80	.00	4.80	1.07	22.67	22.67
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA 1998	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	APR 1998	.40	.48	4.39	6.32	4.80	.00	17.33	1.21	29.66	34.05
APPLY NITROGEN	52HP-WT, BACKFORK, HAND LABOR	MAY 1998	.33	1.25	2.10	1.14	10.01	.00	8.75	.70	20.60	22.70
SUCKER/LEAF REM. (INCL. TRAINING)	HAND LABOR	JUN 1998	.00	4.00	.00	.00	28.00	.00	.00	.79	28.79	28.79
DISK	52HP-WT, 9' DISK	JUN 1998	.50	.55	8.61	2.76	5.50	.00	.00	.23	8.49	17.09
WEED AROUND TREE	HAND LABOR	JUL 1998	.00	3.00	.00	.00	21.00	.00	.00	.45	21.45	21.45
DISK	52HP-WT, 9' DISK	AUG 1998	.50	.55	8.61	2.76	5.50	.00	.00	.12	8.37	16.98
CULTIPACK	52HP-WT, 10' CULTIPACK	AUG 1998	1.00	1.10	11.23	3.61	11.00	.00	.00	.21	14.82	26.04
PLANT COVER CROP	52HP-WT, RENTED GRASS SEEDER	SEP 1998	.50	.60	3.10	1.66	6.00	10.00	26.25	.31	44.22	47.32
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT 1998	.40	.48	4.39	6.32	4.80	.00	11.95	.00	23.07	27.46
GOPHER CONTROL	HAND LABOR	ANN 1998	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MISC USE	PICKUP	ANN 1998	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN 1998	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN 1998	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN 1998	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN 1998	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN 1998	.00	.00	27.27	.00	.00	.00	.00	.00	.00	27.27
LAND COST	INTEREST ON LAND	ANN 1998	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
TOTAL PER ACRE			18.22	36.46	775.80	96.18	366.56	824.80	1774.93	163.46	3225.93	4001.74

TABLE 6A: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 1.

Month	Operation	Material and/or Service
Fall	Soil Sample	Custom Hire @ \$12/Acre
Fall	Rip Ground	Custom Hire @ \$100/Acre
Fall	Fumigate	37 Gal. Vapam @ \$4.24/Gal. Portable Handlines & Labor @ \$70/Acre
Fall	Broadcast Fertilizer	Rented Spreader @ \$4/Acre 120 Lbs. Nitrogen @ \$.35/Lb. 15 Lbs. Borate 46 @ \$.55/Lb.
Feb.	Layout & Stake	20 Stakes @ \$.10/Stake
Feb.	Plant Trees (includes heading the tree)	Custom Hire @ \$.40/Tree 272 Trees @ \$5.50/Tree
Mar.	Paint Trees	.6 Gal. Paint @ \$8/Gal.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Apply Herbicide	.4 Gal. Prowl @ \$26.77/Gal. 1 Pt. Gramoxone @ \$5.38/Pt. .5 Pt. X-77 @ \$2.48/Pt.
May	Apply Nitrogen	25 Lbs. Nitrogen @ \$.35/Lb.
Sept.	Plant Cover Crop	Rented Grass Seeder @ \$10/Acre 15 Lbs. Companion Grass Seed @ \$1.75/Lb.
Oct.	Apply Herbicide	.4 Gal. Prowl @ \$26.77/Gal. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Overhead	\$400/Acre

**TABLE 7A: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 1**

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

VARIABLE COSTS		\$		\$	
SOIL SAMPLE	ACRE	12.00	1.00	12.00	_____
PORTABLE HANDLINE	ACRE	70.00	1.00	70.00	_____
RENT FERT SPREADER	ACRE	4.00	1.00	4.00	_____
CUSTOM RIPPING	ACRE	100.00	1.00	100.00	_____
NITROGEN-ACTUAL	LB.	.35	145.00	50.75	_____
BORATE-46 14.3%	LB.	.55	15.00	8.25	_____
VAPAM	GAL.	4.24	37.00	156.88	_____
STAKES	STAK	.10	20.00	2.00	_____
TREES	TREE	5.50	272.00	1496.00	_____
PLANT TREES	TREE	.40	272.00	108.80	_____
PAINT	GAL.	8.00	.60	4.80	_____
PROWL 3.3	GAL.	26.77	.80	21.42	_____
GRAMOXONE	PINT	5.38	1.00	5.38	_____
X-77	PINT	2.48	1.00	2.48	_____
COMPANION SEED	LB.	1.75	15.00	26.25	_____
RENT GRASS SEEDER	ACRE	10.00	1.00	10.00	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
IRRIG/ELECT CHARGE	ACRE	120.00	1.00	120.00	_____
TRACTOR REPAIR	ACRE	8.07	1.00	8.07	_____
TRACTOR FUEL/LUBE	ACRE	9.74	1.00	9.74	_____
MACHINERY REPAIRS	ACRE	52.95	1.00	52.95	_____
MACHINE FUEL/LUBE	ACRE	25.42	1.00	25.42	_____
CASUAL LABOR	HOUR	7.00	12.43	87.01	_____
LABOR(TRAC/MACH)	HOUR	10.00	16.18	161.80	_____
SUPERVISOR LABOR	HOUR	15.00	7.85	117.75	_____
INTEREST ON OP. CAP.	ACRE	163.46	1.00	163.46	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____

TOTAL VARIABLE COST				3225.93	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	14.35	1.00	14.35	_____
TRACTOR INTEREST	ACRE	14.86	1.00	14.86	_____
TRACTOR INSURANCE	ACRE	1.05	1.00	1.05	_____
TRACTOR TAXES	ACRE	3.15	1.00	3.15	_____
MACHINE DEPRECIATION*	ACRE	146.38	1.00	146.38	_____
MACHINE INTEREST*	ACRE	146.68	1.00	146.68	_____
MACHINE INSURANCE*	ACRE	10.35	1.00	10.35	_____
MACHINE TAXES*	ACRE	11.71	1.00	11.71	_____
LAND TAXES YR 1	ACRE	27.27	1.00	27.27	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____

TOTAL FIXED COST				775.80	_____
TOTAL COST				4001.74	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5B: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 2

VARIABLE COST												

OPERATION	TOOLING	MTH YEAR	MACH HOURS	LABOR HOURS	TOTAL	FUEL,					TOTAL	TOTAL
					FIXED COST	LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.	VARIABLE COST	COST

					\$	\$	\$	\$	\$	\$	\$	\$
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL 1998	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	HAND LABOR	FALL 1998	.00	3.00	.00	.00	21.00	.00	7.20	2.20	30.40	30.40
REPLANT 6 TREES	52HP-WT, BACKFORK	FEB 1999	1.35	1.50	8.57	4.65	15.00	.00	33.00	2.98	55.63	64.20
BRANCH PROMOTION	HAND LABOR	FEB 1999	.00	23.00	.00	.00	161.00	.00	.00	9.12	170.12	170.12
FERT COVER CROP	52HP-WT, VICON FERT SPREADER	MAR 1999	.50	.55	6.04	2.41	5.50	.00	35.00	2.13	45.03	51.07
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA 1999	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY 1999	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
APPLY HERBICIDE	52HP-WT, 100 GAL. SPRAYER	JUN 1999	.40	.48	4.39	6.32	4.80	.00	9.66	.59	21.37	25.76
MOW ORCHARD	52HP-WT, 9' MOWER	JUL 1999	.67	.74	6.47	3.67	7.40	.00	.00	.24	11.31	17.78
SEL & REM SHOOTS	HAND LABOR AND PRUNING TOOLS	JUL 1999	.00	4.50	.41	.00	31.50	.00	.00	.67	32.17	32.58
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG 1999	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	AUG 1999	.40	.48	4.39	6.32	4.80	.00	7.04	.26	18.42	22.81
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	OCT 1999	.67	.74	6.47	3.67	7.40	.00	.00	.00	11.07	17.54
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT 1999	.40	.48	4.39	6.32	4.80	.00	10.71	.00	21.83	26.22
GOPHER CONTROL	HAND LABOR	ANN 1999	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	APPLICATION & MATERIAL COST	ANN 1999	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	PICKUP	ANN 1999	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN 1999	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN 1999	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN 1999	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN 1999	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN 1999	.00	.00	27.27	.00	.00	.00	.00	.00	.00	27.27
LAND COST	INTEREST ON LAND	ANN 1999	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON 1ST YR ESTAB COST	ANN 1999	.00	.00	340.15	.00	.00	.00	.00	.00	.00	340.15

TOTAL PER ACRE			19.07	57.35	1111.79	106.74	515.25	532.00	129.57	56.59	1340.15	2451.94

TABLE 6B: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 2.

Month	Operation	Material and/or Service
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Trees	.9 Gal. Paint @ \$8/Gal.
Feb.	Replant 6 Trees	6 Trees @ \$5.50/Tree
Mar.	Fertilize Cover Crop	100 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
June	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .33 Qt. 2-4-D @ \$7.94/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Aug.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Oct.	Apply Herbicide	.4 Gal. Prowl @ \$26.77/Gal.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Material Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

**TABLE 7B: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 2.**

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

VARIABLE COSTS		\$		\$	
NITROGEN-ACTUAL	LB.	.35	175.00	61.25	_____
PAINT	GAL.	8.00	.90	7.20	_____
TREES	TREE	5.50	6.00	33.00	_____
ROUNDUP-RT	QT.	11.59	1.00	11.59	_____
2-4-D	QT.	7.94	.33	2.62	_____
X-77	PINT	2.48	1.00	2.48	_____
PROWL 3.3	GAL.	26.77	.40	10.71	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
IRRIG/ELECT CHARGE	ACRE	120.00	1.00	120.00	_____
TRACTOR REPAIR	ACRE	9.35	1.00	9.35	_____
TRACTOR FUEL/LUBE	ACRE	11.28	1.00	11.28	_____
MACHINERY REPAIRS	ACRE	60.69	1.00	60.69	_____
MACHINE FUEL/LUBE	ACRE	25.42	1.00	25.42	_____
CASUAL LABOR	HOUR	7.00	32.50	227.50	_____
LABOR (TRAC/MACH)	HOUR	10.00	17.00	170.00	_____
SUPERVISOR LABOR	HOUR	15.00	7.85	117.75	_____
INTEREST ON OP. CAP.	ACRE	56.59	1.00	56.59	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____

TOTAL VARIABLE COST				1340.15	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	16.61	1.00	16.61	_____
TRACTOR INTEREST	ACRE	17.21	1.00	17.21	_____
TRACTOR INSURANCE	ACRE	1.21	1.00	1.21	_____
TRACTOR TAXES	ACRE	3.64	1.00	3.64	_____
MACHINE DEPRECIATION*	ACRE	142.35	1.00	142.35	_____
MACHINE INTEREST*	ACRE	142.47	1.00	142.47	_____
MACHINE INSURANCE*	ACRE	10.06	1.00	10.06	_____
MACHINE TAXES*	ACRE	10.82	1.00	10.82	_____
LAND TAXES YR 2	ACRE	27.27	1.00	27.27	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____
ESTAB COST INTEREST	ACRE	340.15	1.00	340.15	_____

TOTAL FIXED COST				1111.79	_____
TOTAL COST				2451.94	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5C: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 3

VARIABLE COST												

OPERATION	TOOLING	MTH YEAR	MACH HOURS	LABOR HOURS	TOTAL	FUEL,					TOTAL	TOTAL
					FIXED COST	LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.	VARIABLE COST	COST

					\$	\$	\$	\$	\$	\$	\$	\$
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL 1999	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL 1999	.50	1.20	9.87	2.72	10.20	.00	12.80	2.00	27.73	37.60
REPLANT 4 TREES	52HP-WT, BACKFORK	FEB 2000	1.00	1.10	6.35	3.44	11.00	.00	22.00	2.07	38.51	44.86
BRANCH PROMOTION	HAND LABOR	FEB 2000	.00	46.00	.00	.00	322.00	.00	.00	18.25	340.25	340.25
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA 2000	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY 2000	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY 2000	.33	.40	5.41	3.16	4.00	.00	7.50	.52	15.17	20.58
APPLY HERBICIDE	52HP-WT, 100 GAL. SPRAYER	JUN 2000	.40	.48	4.39	6.32	4.80	.00	9.66	.59	21.37	25.76
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN 2000	.33	.40	5.41	3.16	4.00	.00	32.83	1.13	41.12	46.53
MOW ORCHARD	52HP-WT, 9' MOWER	JUL 2000	.67	.74	6.47	3.67	7.40	.00	.00	.24	11.31	17.78
SEL & REM SHOOTS	HAND LABOR AND PRUNING TOOLS	JUL 2000	.00	4.50	.41	.00	31.50	.00	.00	.67	32.17	32.58
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG 2000	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	AUG 2000	.40	.48	4.39	6.32	4.80	.00	7.04	.26	18.42	22.81
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	OCT 2000	.67	.74	6.47	3.67	7.40	.00	.00	.00	11.07	17.54
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT 2000	.40	.48	4.39	6.32	4.80	.00	10.71	.00	21.83	26.22
GOPHER CONTROL	HAND LABOR	ANN 2000	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	APPLICATION & MATERIAL COST	ANN 2000	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	PICKUP	ANN 2000	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN 2000	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN 2000	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN 2000	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN 2000	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN 2000	.00	.00	27.27	.00	.00	.00	.00	.00	.00	27.27
LAND COST	INTEREST ON LAND	ANN 2000	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON 2ND YR ESTAB COST	ANN 2000	.00	.00	548.56	.00	.00	.00	.00	.00	.00	548.56

TOTAL PER ACRE			19.38	78.40	1332.63	112.16	663.95	532.00	129.50	64.12	1501.74	2834.37

TABLE 6C: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 3.

Month	Operation	Material and/or Service
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Trees	1.6 Gal. Paint @ \$8/Gal.
Feb.	Replant 4 Trees	4 Trees @ \$5.50/Tree
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
May	Mildew Spray	10 Lbs. Wettable Sulfur @ \$.75/Lb.
June	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .33 Qt. 2-4-D @ \$7.94/Qt. .5 Pt. X-77 @ \$2.48/Pt.
June	Fruit Fly/Mildew Spray	3 Pts. Dimetholate @ \$3.81/Pt. 5 Oz. Rally 40wp @ \$4.28/Oz.
Aug.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Oct.	Apply Herbicide	.4 Gal. Prowl @ \$26.77/Gal.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Material Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

**TABLE 7C: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(272 TREES) CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 3**

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

VARIABLE COSTS		\$		\$	
NITROGEN-ACTUAL	LB.	.35	75.00	26.25	_____
PAINT	GAL.	8.00	1.60	12.80	_____
TREES	TREE	5.50	4.00	22.00	_____
WETABLE SULFUR	LB.	.75	10.00	7.50	_____
RALLY 40W	OZ.	4.28	5.00	21.40	_____
DIMETHOLATE 267	PINT	3.81	3.00	11.43	_____
ROUNDUP-RT	QT.	11.59	1.00	11.59	_____
2-4-D	QT.	7.94	.33	2.62	_____
X-77	PINT	2.48	1.00	2.48	_____
PROWL 3.3	GAL.	26.77	.40	10.71	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
IRRIG/ELECT CHARGE	ACRE	120.00	1.00	120.00	_____
TRACTOR REPAIR	ACRE	9.81	1.00	9.81	_____
TRACTOR FUEL/LUBE	ACRE	11.85	1.00	11.85	_____
MACHINERY REPAIRS	ACRE	65.09	1.00	65.09	_____
MACHINE FUEL/LUBE	ACRE	25.42	1.00	25.42	_____
CASUAL LABOR	HOURL	7.00	53.10	371.70	_____
LABOR (TRAC/MACH)	HOURL	10.00	17.45	174.50	_____
SUPERVISOR LABOR	HOURL	15.00	7.85	117.75	_____
INTEREST ON OP. CAP.	DOL.	.09	754.39	64.12	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____

TOTAL VARIABLE COST				1501.74	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	17.44	1.00	17.44	_____
TRACTOR INTEREST	ACRE	18.07	1.00	18.07	_____
TRACTOR INSURANCE	ACRE	1.28	1.00	1.28	_____
TRACTOR TAXES	ACRE	3.83	1.00	3.83	_____
MACHINE DEPRECIATION*	ACRE	149.25	1.00	149.25	_____
MACHINE INTEREST*	ACRE	145.27	1.00	145.27	_____
MACHINE INSURANCE*	ACRE	10.25	1.00	10.25	_____
MACHINE TAXES*	ACRE	11.41	1.00	11.41	_____
LAND TAXES YR 3	ACRE	27.27	1.00	27.27	_____
INTER. ON LAND	ACRE	400.00	1.00	400.00	_____
ESTAB COST INTEREST	ACRE	548.56	1.00	548.56	_____

TOTAL FIXED COST				1332.63	_____
TOTAL COST				2834.37	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5D: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE ESTABLISHING A HIGH DENSITY (272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 4

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	VARIABLE COST						TOTAL COST	
						TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		TOTAL VARIABLE COST
						\$	\$	\$	\$	\$	\$	\$	
FALL SPRAY	52HP-WT, BLAST SPRAYER	FALL	2000	.33	.40	5.41	3.16	4.00	.00	34.04	3.21	44.41	49.81
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL	2000	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL	2000	.50	1.20	9.87	2.72	10.20	.00	12.80	2.00	27.73	37.60
PRUNE	HAND LABOR, PRUNING TOOLS	FEB	2001	.00	30.00	2.74	.00	266.00	.00	.00	15.07	281.07	283.81
REPLANT 3 TREES	52HP-WT, BACKFORK	FEB	2001	.80	.88	5.08	2.76	8.80	.00	16.50	1.59	29.65	34.72
TRAIN TREES	HAND LABOR	MAR	2001	.00	20.00	.00	.00	140.00	.00	.00	6.94	146.94	146.94
DORMANT SPRAY	52HP-WT, BLAST SPRAYER	MAR	2001	.33	.40	5.41	3.16	4.00	.00	44.78	2.58	54.51	59.92
FERTILIZE	52HP-WT, VICON FERT SPREADER	MAR	2001	.50	.55	6.04	2.41	5.50	.00	21.00	1.43	30.34	36.38
RENT BEEHIVE	ONE BEEHIVE PER ACRE	APR	2001	.00	.00	.00	.00	.00	35.00	.00	1.49	36.49	36.49
PETAL FALL SPRAY	52HP-WT, BLAST SPRAYER	APR	2001	.33	.40	5.41	3.16	4.00	.00	11.85	.81	19.81	25.22
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	APR	2001	.33	.40	5.41	3.16	4.00	.00	26.50	1.43	35.09	40.49
FROST CONTROL	WIND MACHINE	APR	2001	.00	2.00	164.27	92.79	30.00	.00	.00	5.22	128.01	292.28
FROST CONTROL	FROST ALARM & THERMOMETERS	APR	2001	.00	.00	2.92	.00	.00	.00	.00	.00	.00	2.92
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA	2001	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY	2001	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
FRT FLY SPY	52HP-WT, BLAST SPRAYER	MAY	2001	.33	.40	5.41	3.16	4.00	.00	16.12	.82	24.10	29.51
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	MAY	2001	.40	.48	4.39	6.32	4.80	.00	7.04	.64	18.80	23.19
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY	2001	.33	.40	5.41	3.16	4.00	.00	26.50	1.19	34.85	40.25
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN	2001	.33	.40	5.41	3.16	4.00	.00	8.70	.45	16.30	21.71
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	JUN	2001	.67	.74	6.47	3.67	7.40	.00	.00	.31	11.38	17.86
FRT FLY SPY (3X)	APPLIED BY HELICOPTER	JUN-JUL	2001	.00	.00	.00	.00	.00	45.00	10.56	1.57	57.13	57.13
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	JUL	2001	.40	.48	4.39	6.32	4.80	.00	9.66	.44	21.22	25.61
HARVEST	PICKING, SUPERVISE, SWAMP, LOAD	JUL	2001	.00	.00	.00	.00	.00	480.00	.00	10.20	490.20	490.20
HARVEST	CUSTOM HAUL FRUIT TO WAREHOUSE	JUL	2001	.00	.00	.00	.00	.00	15.00	.00	.32	15.32	15.32
CLEANUP SPRAY	52HP-WT, 100-GAL SPRAYER	JUL	2001	.33	.40	5.41	3.16	4.00	.00	.70	.17	8.03	13.44
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG	2001	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	SEP	2001	.67	.74	6.47	3.67	7.40	.00	.00	.08	11.15	17.62
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT	2001	.40	.48	4.39	6.32	4.80	.00	7.04	.00	18.16	22.55
GOPHER CONTROL	HAND LABOR	ANN	2001	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	AERIAL APPLIC & SPRAY COST	ANN	2001	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	PICKUP	ANN	2001	7.14	7.85	35.61	23.42	117.00	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN	2001	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN	2001	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN	2001	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN	2001	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN	2001	.00	.00	42.42	.00	.00	.00	.00	.00	.00	42.42
LAND COST	INTEREST ON LAND	ANN	2001	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON ESTABLISHMENT COST	ANN	2001	.00	.00	789.48	.00	.00	.00	.00	.00	.00	789.48
TOTAL PER ACRE				21.66	82.63	1795.43	225.60	773.75	1107.00	280.75	96.38	2483.50	4278.93

TABLE 6D: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 4.

Month	Operation	Material and/or Service
Fall	Spray	12 Lbs. Copper Sulfate @ \$2.53/Lb. 1 Pint Nu-Film @ \$3.68/Pt.
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Tree Trunks	1.6 Gal. Paint @ \$8/Gal.
Feb.	Replant 3 Trees	3 Trees @ \$5.50/Tree
Mar.	Dormant Spray	4 Gal. Superior Oil @ \$2.45/Gal. 4 Pt. Lorsban @ \$5.57/Pt. 1 Gal. Liquid Zinc @ \$12.70/Gal.
Mar.	Fertilize	60 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Rent Beehive	1 Beehive @ \$35.00/Hive
Apr.	Petal Fall Spray	5 Lbs. Solubar @ \$.87/Lb. 10 Lbs. Wettable Sulfur @ \$.75/Lb.
Apr.	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wettable Sulfur @ \$.75/Lb.
May	Fruit Fly Spray	2 Lbs. Guthion @ \$6.56/Lb. 4 Lbs. Wettable Sulfur @ \$.75/Lb.
May	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
May	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wettable Sulfur @ \$.75/Lb.
June	Fruit Fly Spray	3 Pts. Malathion @ \$2.90/Pt.
June - July	Fruit Fly Spray (3x)	1 Pt. Cythion-ULV per application @ \$3.52/Pt. Helicopter applied @ \$15.00/Acre

TABLE 6D: CONTINUED

Month	Operation	Material and/or Service
July	Apply Herbicide	.5 Qt. Roundup @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt. .33 Qt. 2-4-D @ \$7.94/Qt.
July	Harvest	Pick, Supervise, Swamp & Load 1.5 Tons of Fruit @ \$.16/Lb.
July	Harvest	Haul 1.5 Tons of Fruit @ \$10/Ton
July	Cleanup Spray	.5 Lbs. Sevin @ \$1.41/Lb.
Oct.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Spray Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

**TABLE 7D: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 4**

		PRICE OR		VALUE OR	YOUR
		UNIT COST/UNIT	QUANTITY	COST	FARM
VARIABLE COSTS		\$		\$	
PAIN	GAL.	8.00	1.60	12.80	_____
TREES	TREE	5.50	3.00	16.50	_____
NITROGEN-ACTUAL	LB.	.35	135.00	47.25	_____
COPPER SULFATE	LB.	2.53	12.00	30.36	_____
NU-FILM	PINT	3.68	1.00	3.68	_____
SUPERIOR OIL	GAL.	2.45	4.00	9.80	_____
LIQUID ZINC 9%	GAL.	12.70	1.00	12.70	_____
LORSBAN	PINT	5.57	4.00	22.28	_____
MILDEW SPRAY	ACRE	25.00	2.00	50.00	_____
SOLUBOR 25.5%	LB.	.87	5.00	4.35	_____
WETABLE SULFUR	LB.	.75	18.00	13.50	_____
ROUNDUP-RT	QT.	11.59	1.50	17.40	_____
X-77	PINT	2.48	1.50	3.72	_____
GUTHION (50%WP)	LB.	6.56	2.00	13.12	_____
CYTHION-ULV	PINT	3.52	3.00	10.56	_____
HELICOPTER APPLICA.	ACRE	15.00	3.00	45.00	_____
MALATHION 57	PINT	2.90	3.00	8.70	_____
SEVIN 80F	LB.	1.41	.50	.70	_____
2-4-D	QT.	7.94	.33	2.62	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
RENT BEEHIVE	HIVE	35.00	1.00	35.00	_____
IRRIG/ELECT CHARGE	ACRE	120.00	1.00	120.00	_____
HARVEST COST	TON	320.00	1.50	480.00	_____
CUSTOM HAULING	TON	10.00	1.50	15.00	_____
TRACTOR REPAIR	ACRE	13.23	1.00	13.23	_____
TRACTOR FUEL/LUBE	ACRE	15.98	1.00	15.98	_____
MACHINERY REPAIRS	ACRE	108.19	1.00	108.19	_____
MACHINE FUEL/LUBE	ACRE	88.21	1.00	88.21	_____
CASUAL LABOR	HO	7.00	45.60	319.20	_____
LABOR(TRAC/MACH)	HO	10.00	20.18	201.80	_____
SUPERVISOR LABOR	HO	15.00	16.85	252.75	_____
INTEREST ON OP. CAP.	ACRE	96.38	1.00	96.38	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____
TOTAL VARIABLE COST				2483.50	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	23.52	1.00	23.52	_____
TRACTOR INTEREST	ACRE	24.37	1.00	24.37	_____
TRACTOR INSURANCE	ACRE	1.72	1.00	1.72	_____
TRACTOR TAXES	ACRE	5.16	1.00	5.16	_____
MACHINE DEPRECIATION*	ACRE	216.33	1.00	216.33	_____
MACHINE INTEREST*	ACRE	243.33	1.00	243.33	_____
MACHINE INSURANCE*	ACRE	17.11	1.00	17.11	_____
MACHINE TAXES*	ACRE	31.99	1.00	31.99	_____
ESTAB COST INTEREST	ACRE	789.48	1.00	789.48	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____
LAND TAXES YR 4	ACRE	42.42	1.00	42.42	_____
TOTAL FIXED COST				1795.43	_____
TOTAL COST				4278.93	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5E: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 5

OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	VARIABLE COST						TOTAL VARIABLE COST	TOTAL COST
						TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.		
						\$	\$	\$	\$	\$	\$	\$	\$
FALL SPRAY	52HP-WT, BLAST SPRAYER	FALL	2001	.33	.40	5.41	3.16	4.00	.00	34.04	3.21	44.41	49.81
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL	2001	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL	2001	.60	1.44	11.84	3.27	12.24	.00	17.60	2.58	35.69	47.53
PRUNE	LABOR, PRUNING TOOLS, LADDERS	FEB	2002	.00	38.00	7.14	2.28	338.00	.00	.00	19.28	359.56	366.70
BRUSH REMOVAL	52HP-WT, BRUSH WINDROWER	FEB	2002	.50	.55	7.13	2.76	5.50	.00	.00	.47	8.72	15.85
BRUSH REMOVAL	52HP-WT, 9' ROTARY MOWER	FEB	2002	.50	.55	4.83	2.74	5.50	.00	.00	.47	8.71	13.54
DORMANT SPRAY	52HP-WT, BLAST SPRAYER	MAR	2002	.33	.40	5.41	3.16	4.00	.00	44.78	2.58	54.51	59.92
FERTILIZE	52HP-WT, VICON FERT SPREADER	MAR	2002	.50	.55	6.04	2.41	5.50	.00	21.00	1.43	30.34	36.38
RENT BEEHIVES	1 1/2 BEEHIVES PER ACRE	APR	2002	.00	.00	.00	.00	.00	52.50	.00	2.23	54.73	54.73
PETAL FALL SPRAY	52HP-WT, BLAST SPRAYER	APR	2002	.33	.40	5.41	3.16	4.00	.00	11.85	.81	19.81	25.22
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	APR	2002	.33	.40	5.41	3.16	4.00	.00	26.50	1.43	35.09	40.49
FROST CONTROL	WIND MACHINE	APR	2002	.00	2.00	164.27	92.79	30.00	.00	.00	5.22	128.01	292.28
FROST CONTROL	FROST ALARM & THERMOMETERS	APR	2002	.00	.00	2.92	.00	.00	.00	.00	.00	.00	2.92
FROST CONTROL	UNDERTREE SPRINKLERS	APR	2002	.00	.00	52.25	10.00	.00	15.00	.00	1.06	26.06	78.31
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA	2002	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY	2002	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
FRT FLY SPY	52HP-WT, BLAST SPRAYER	MAY	2002	.33	.40	5.41	3.16	4.00	.00	16.12	.82	24.10	29.51
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	MAY	2002	.40	.48	4.39	6.32	4.80	.00	7.04	.64	18.80	23.19
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY	2002	.33	.40	5.41	3.16	4.00	.00	26.50	1.19	34.85	40.25
GA SPRAY	52HP-WT, BLAST SPRAYER	MAY	2002	.33	.40	5.41	3.16	4.00	.00	20.00	.96	28.12	33.52
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN	2002	.33	.40	5.41	3.16	4.00	.00	8.70	.45	16.30	21.71
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	JUN	2002	.67	.74	6.47	3.67	7.40	.00	.00	.31	11.38	17.86
FRT FLY SPY (3X)	APPLIED BY HELICOPTER	JUN-JUL	2002	.00	.00	.00	.00	.00	45.00	10.56	1.57	57.13	57.13
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	JUL	2002	.40	.48	4.39	6.32	4.80	.00	9.66	.44	21.22	25.61
HARVEST	PICKING, SUPERVISE, SWAMP, LOAD	JUL	2002	.00	.00	.00	.00	.00	960.00	.00	20.40	980.40	980.40
HARVEST	CUSTOM HAUL FRUIT TO WAREHOUSE	JUL	2002	.00	.00	.00	.00	.00	30.00	.00	.64	30.64	30.64
CLEANUP SPRAY	52HP-WT, 100-GAL SPRAYER	JUL	2002	.33	.40	5.41	3.16	4.00	.00	.70	.17	8.03	13.44
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG	2002	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	SEP	2002	.67	.74	6.47	3.67	7.40	.00	.00	.08	11.15	17.62
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT	2002	.40	.48	4.39	6.32	4.80	.00	7.04	.00	18.16	22.55
GOPHER CONTROL	HAND LABOR	ANN	2002	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	AERIAL APPLIC & SPRAY COST	ANN	2002	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	PICKUP	ANN	2002	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN	2002	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN	2002	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN	2002	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN	2002	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN	2002	.00	.00	42.42	.00	.00	.00	.00	.00	.00	42.42
LAND COST	INTEREST ON LAND	ANN	2002	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON ESTABLISHMENT COST	ANN	2002	.00	.00	1015.75	.00	.00	.00	.00	.00	.00	1015.75
TOTAL PER ACRE				22.29	71.49	2092.61	244.32	713.99	1634.50	289.05	106.85	2988.70	5081.31

TABLE 6E: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 5.

Month	Operation	Material and/or Service
Fall	Spray	12 Lbs. Copper Sulfate @ \$2.53/Lb. 1 Pint Nu-Film @ \$3.68/Pt.
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Tree Trunks	2.2 Gal. Paint @ \$8/Gal.
Mar.	Dormant Spray	4 Gal. Superior Oil @ \$2.45/Gal. 4 Pt. Lorsban @ \$5.57/Pt. 1 Gal. Liquid Zinc @ \$12.70/Gal.
Mar.	Fertilize	60 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Rent Beehives	1.5 Beehives @ \$35.00/Hive
Apr.	Petal Fall Spray	5 Lbs. Solubar @ \$.87/Lb. 10 Lbs. Wetable Sulfur @ \$.75/Lb.
Apr.	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wetable Sulfur @ \$.75/Lb.
Apr.	Frost Control	Irrigation/Electrical Charge @ \$15.00/Acre
May	Fruit Fly Spray	2 Lbs. Guthion @ \$6.56/Lb. 4 Lbs. Wetable Sulfur @ \$.75/Lb.
May	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
May	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wetable Sulfur @ \$.75/Lb.
May	GA Spray	GA Spray @ \$20.00/Acre
June	Fruit Fly Spray	3 Pts. Malathion @ \$2.90/Pt.
June - July	Fruit Fly Spray (3x)	1 Pt. Cythion-ULV per application @ \$3.52/Pt. Helicopter applied @ \$15.00/Acre

TABLE 6E: CONTINUED

Month	Operation	Material and/or Service
July	Apply Herbicide	.5 Qt. Roundup @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt. .33 Qt. 2-4-D @ \$7.94/Qt.
July	Harvest	Pick, Supervise, Swamp & Load 3.0 Tons of Fruit @ \$.16/Lb.
July	Harvest	Haul 3.0 Tons of Fruit @ \$10/Ton
July	Cleanup Spray	.5 Lbs. Sevin @ \$1.41/Lb.
Oct.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Spray Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

**TABLE 7E: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 5**

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

VARIABLE COSTS		\$		\$	
PAINT	GAL.	8.00	2.20	17.60	_____
NITROGEN-ACTUAL	LB.	.35	135.00	47.25	_____
COPPER SULFATE	LB.	2.53	12.00	30.36	_____
NU-FILM	PINT	3.68	1.00	3.68	_____
SUPERIOR OIL	GAL.	2.45	4.00	9.80	_____
LIQUID ZINC 9%	GAL.	12.70	1.00	12.70	_____
LORSBAN	PINT	5.57	4.00	22.28	_____
MILDEW SPRAY	ACRE	25.00	2.00	50.00	_____
SOLUBOR 25.5%	LB.	.87	5.00	4.35	_____
WETABLE SULFER	LB.	.75	18.00	13.50	_____
ROUNDUP-RT	QT.	11.59	1.50	17.38	_____
X-77	PINT	2.48	1.50	3.72	_____
GUTHION (50%WP)	LB.	6.56	2.00	13.12	_____
GA SPRAY	ACRE	20.00	1.00	20.00	_____
CYTHON-ULV	PINT	3.52	3.00	10.56	_____
HELICOPTER APPL	ACRE	15.00	3.00	45.00	_____
MALATHION 57	PINT	2.90	3.00	8.70	_____
SEVIN 80F	LB.	1.41	.50	.70	_____
2-4-D	QT.	7.94	.33	2.62	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
RENT BEEHIVES	HIVE	35.00	1.50	52.50	_____
IRRIG/ELECT CHG	ACRE	135.00	1.00	135.00	_____
HARVEST COST	TON	320.00	3.00	960.00	_____
CUSTOM HAULING	TON	10.00	3.00	30.00	_____
TRACTOR REPAIR	ACRE	14.17	1.00	14.17	_____
TRACTOR FUEL/LUBE	ACRE	17.12	1.00	17.12	_____
MACHINERY REPAIRS	ACRE	124.82	1.00	124.82	_____
MACHINE FUEL/LUBE	ACRE	88.21	1.00	88.21	_____
CASUAL LABOR	HOUR	7.00	31.72	222.04	_____
LABOR(TRAC/MACH)	HOUR	10.00	20.92	209.20	_____
SUPERVISOR LABOR	HOUR	15.00	18.85	282.75	_____
INTEREST ON OP. CAP.	ACRE	106.85	1.00	106.85	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____
TOTAL VARIABLE COST				2988.70	_____

FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	25.20	1.00	25.20	_____
TRACTOR INTEREST	ACRE	26.11	1.00	26.11	_____
TRACTOR INSURANCE	ACRE	1.84	1.00	1.84	_____
TRACTOR TAXES	ACRE	5.53	1.00	5.53	_____
MACHINE DEPRECIATION*	ACRE	250.23	1.00	250.23	_____
MACHINE INTEREST*	ACRE	269.14	1.00	269.14	_____
MACHINE INSURANCE*	ACRE	18.94	1.00	18.94	_____
MACHINE TAXES*	ACRE	37.46	1.00	37.46	_____
ESTAB COST INTEREST	ACRE	1015.75	1.00	1015.75	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____
LAND TAXES YR 5	ACRE	42.42	1.00	42.42	_____
TOTAL FIXED COST				2092.61	_____
TOTAL COST				5081.32	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5F: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 6

		VARIABLE COST											
OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL	FUEL, LUBE, & REPAIRS					TOTAL	TOTAL
						FIXED COST	LABOR	SERVICE	MATER.	INTER.	VARIABLE COST	COST	
						\$	\$	\$	\$	\$	\$	\$	\$
FALL SPRAY	52HP-WT, BLAST SPRAYER	FALL	2002	.33	.40	5.41	3.16	4.00	.00	34.04	3.21	44.41	49.81
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL	2002	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL	2002	.60	1.44	11.84	3.27	12.24	.00	17.60	2.58	35.69	47.53
PRUNE	LABOR, PRUNING TOOLS, LADDERS	FEB	2003	.00	38.00	7.14	2.28	338.00	.00	.00	19.28	359.56	366.70
BRUSH REMOVAL	52HP-WT, BRUSH WINDROWER	FEB	2003	.50	.55	7.13	2.76	5.50	.00	.00	.47	8.72	15.85
BRUSH REMOVAL	52HP-WT, 9' ROTARY MOWER	FEB	2003	.50	.55	4.83	2.74	5.50	.00	.00	.47	8.71	13.54
DORMANT SPRAY	52HP-WT, BLAST SPRAYER	MAR	2003	.33	.40	5.41	3.16	4.00	.00	44.78	2.58	54.51	59.92
FERTILIZE	52HP-WT, VICON FERT SPREADER	MAR	2003	.50	.55	6.04	2.41	5.50	.00	21.00	1.43	30.34	36.38
RENT BEEHIVES	1 1/2 BEEHIVES PER ACRE	APR	2003	.00	.00	.00	.00	.00	52.50	.00	2.23	54.73	54.73
PETAL FALL SPRAY	52HP-WT, BLAST SPRAYER	APR	2003	.33	.40	5.41	3.16	4.00	.00	11.85	.81	19.81	25.22
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	APR	2003	.33	.40	5.41	3.16	4.00	.00	26.50	1.43	35.09	40.49
FROST CONTROL	WIND MACHINE	APR	2003	.00	2.00	164.27	92.79	30.00	.00	.00	5.22	128.01	292.28
FROST CONTROL	FROST ALARM & THERMOMETERS	APR	2003	.00	.00	2.92	.00	.00	.00	.00	.00	.00	2.92
FROST CONTROL	UNDERTREE SPRINKLERS	APR	2003	.00	.00	52.25	10.00	.00	15.00	.00	1.06	26.06	78.31
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA	2003	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY	2003	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
FRT FLY SPY	52HP-WT, BLAST SPRAYER	MAY	2003	.33	.40	5.41	3.16	4.00	.00	16.12	.82	24.10	29.51
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	MAY	2003	.40	.48	4.39	6.32	4.80	.00	7.04	.64	18.80	23.19
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY	2003	.33	.40	5.41	3.16	4.00	.00	26.50	1.19	34.85	40.25
GA SPRAY	52HP-WT, BLAST SPRAYER	MAY	2003	.33	.40	5.41	3.16	4.00	.00	40.00	1.67	48.83	54.23
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN	2003	.33	.40	5.41	3.16	4.00	.00	8.70	.45	16.30	21.71
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	JUN	2003	.67	.74	6.47	3.67	7.40	.00	.00	.31	11.38	17.86
FRT FLY SPY (3X)	APPLIED BY HELICOPTER	JUN-JUL	2003	.00	.00	.00	.00	.00	45.00	10.56	1.57	57.13	57.13
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	JUL	2003	.40	.48	4.39	6.32	4.80	.00	9.66	.44	21.22	25.61
HARVEST (5 TONS)	PICKING, SUPERVISE, SWAMP, LOAD	JUL	2003	.00	.00	.00	.00	.00	1600.00	.00	34.00	1634.00	1634.00
HARVEST (5 TONS)	CUSTOM HAUL FRUIT TO WAREHOUSE	JUL	2003	.00	.00	.00	.00	.00	50.00	.00	1.06	51.06	51.06
CLEANUP SPRAY	52HP-WT, 100-GAL SPRAYER	JUL	2003	.33	.40	5.41	3.16	4.00	.00	.70	.17	8.03	13.44
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG	2003	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	SEP	2003	.67	.74	6.47	3.67	7.40	.00	.00	.08	11.15	17.62
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT	2003	.40	.48	4.39	6.32	4.80	.00	7.04	.00	18.16	22.55
GOPHER CONTROL	HAND LABOR	ANN	2003	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	AERIAL APPLIC & SPRAY COST	ANN	2003	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	1/2 TON PICKUP	ANN	2003	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN	2003	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN	2003	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN	2003	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN	2003	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN	2003	.00	.00	42.42	.00	.00	.00	.00	.00	.00	42.42
LAND COST	INTEREST ON LAND	ANN	2003	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON ESTABLISHMENT COST	ANN	2003	.00	.00	1172.77	.00	.00	.00	.00	.00	.00	1172.77
TOTAL PER ACRE				22.29	71.49	2249.63	244.32	713.99	2294.50	309.05	121.59	3683.44	5933.07

TABLE 6F: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 6.

Month	Operation	Material and/or Service
Fall	Spray	12 Lbs. Copper Sulfate @ \$2.53/Lb. 1 Pint Nu-Film @ \$3.68/Pt.
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Tree Trunks	2.2 Gal. Paint @ \$8/Gal.
Mar.	Dormant Spray	4 Gal. Superior Oil @ \$2.45/Gal. 4 Pt. Lorsban @ \$5.57/Pt. 1 Gal. Liquid Zinc @ \$12.70/Gal.
Mar.	Fertilize	60 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Rent Beehives	1.5 Beehives @ \$35.00/Hive
Apr.	Petal Fall Spray	5 Lbs. Solubar @ \$.87/Lb. 10 Lbs. Wetable Sulfur @ \$.75/Lb.
Apr.	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wetable Sulfur @ \$.75/Lb.
Apr.	Frost Control	Irrigation/Electrical Charge @ \$15.00/Acre
May	Fruit Fly Spray	2 Lbs. Guthion @ \$6.56/Lb. 4 Lbs. Wetable Sulfur @ \$.75/Lb.
May	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
May	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wetable Sulfur @ \$.75/Lb.
May	GA Spray	GA Spray @ \$40.00/Acre
June	Fruit Fly Spray	3 Pts. Malathion @ \$2.90/Pt.
June - July	Fruit Fly Spray (3x)	1 Pt. Cythion-ULV per application @ \$3.52/Pt. Helicopter applied @ \$15.00/Acre

TABLE 6F: CONTINUED

Month	Operation	Material and/or Service
July	Apply Herbicide	.5 Qt. Roundup @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt. .33 Qt. 2-4-D @ \$7.94/Qt.
July	Harvest	Pick, Supervise, Swamp & Load 5.0 Tons of Fruit @ \$.16/Lb.
July	Harvest	Haul 5.0 Tons of Fruit @ \$10/Ton
July	Cleanup Spray	.5 Lbs. Sevin @ \$1.41/Lb.
Oct.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Spray Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

**TABLE 7F: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 6**

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

VARIABLE COSTS		\$		\$	
PAINT	GAL.	8.00	2.20	17.60	_____
NITROGEN-ACTUAL	LB.	.35	135.00	47.25	_____
COPPER SULFATE	LB.	2.53	12.00	30.36	_____
NU-FILM	PINT	3.68	1.00	3.68	_____
SUPERIOR OIL	GAL.	2.45	4.00	9.80	_____
LIQUID ZINC 9%	GAL.	12.70	1.00	12.70	_____
LORSBAN	PINT	5.57	4.00	22.28	_____
MILDEW SPRAY	ACRE	25.00	2.00	50.00	_____
SOLUBOR 25.5%	LB.	.87	5.00	4.35	_____
WETABLE SULFUR	LB.	.75	18.00	13.50	_____
ROUNDUP-RT	QT.	11.59	1.50	17.38	_____
X-77	PINT	2.48	1.50	3.72	_____
GUTHION (50%WP)	LB.	6.56	2.00	13.12	_____
GA SPRAY	ACRE	40.00	1.00	40.00	_____
CYTHON-ULV	PINT	3.52	3.00	10.56	_____
HELICOPTER APPLICAT.	ACRE	15.00	3.00	45.00	_____
MALATHION 57	PINT	2.90	3.00	8.70	_____
SEVIN 80F	LB.	1.41	.50	.70	_____
2-4-D	QT.	7.94	.33	2.62	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
RENT BEEHIVES	HIVE	35.00	1.50	52.50	_____
IRRIG/ELECT CHARGE	ACRE	135.00	1.00	135.00	_____
HARVEST COST	TON	320.00	5.00	1600.00	_____
CUSTOM HAULING	TON	10.00	5.00	50.00	_____
TRACTOR REPAIR	ACRE	14.17	1.00	14.17	_____
TRACTOR FUEL/LUBE	ACRE	17.12	1.00	17.12	_____
MACHINERY REPAIRS	ACRE	124.82	1.00	124.82	_____
MACHINE FUEL/LUBE	ACRE	88.21	1.00	88.21	_____
CASUAL LABOR	HOURL	7.00	31.72	222.04	_____
LABOR (TRAC/MACH)	HOURL	10.00	20.92	209.20	_____
SUPERVISOR LABOR	HOURL	15.00	18.85	282.75	_____
INTEREST ON OP. CAP.	ACRE	121.59	1.00	121.59	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____

TOTAL VARIABLE COST				3683.44	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	25.20	1.00	25.20	_____
TRACTOR INTEREST	ACRE	26.11	1.00	26.11	_____
TRACTOR INSURANCE	ACRE	1.84	1.00	1.84	_____
TRACTOR TAXES	ACRE	5.53	1.00	5.53	_____
MACHINE DEPRECIATION*	ACRE	250.23	1.00	250.23	_____
MACHINE INTEREST*	ACRE	269.14	1.00	269.14	_____
MACHINE INSURANCE*	ACRE	18.94	1.00	18.94	_____
MACHINE TAXES*	ACRE	37.46	1.00	37.46	_____
ESTAB COST INTEREST	ACRE	1172.77	1.00	1172.77	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____
LAND TAXES YR 6	ACRE	42.42	1.00	42.42	_____

TOTAL FIXED COST				2249.63	_____
TOTAL COST				5933.07	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5G: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 7

		VARIABLE COST											
OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL	FUEL, LUBE, & REPAIRS					TOTAL	TOTAL
						FIXED COST	LABOR	SERVICE	MATER.	INTER.	VARIABLE COST	COST	
						\$	\$	\$	\$	\$	\$	\$	
FALL SPRAY	52HP-WT, BLAST SPRAYER	FALL	2003	.33	.40	5.41	3.16	4.00	.00	34.04	3.21	44.41	49.81
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL	2003	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL	2003	.60	1.44	11.84	3.27	12.24	.00	17.60	2.58	35.69	47.53
PRUNE	LABOR, PRUNING TOOLS, LADDERS	FEB	2004	.00	38.00	7.14	2.28	338.00	.00	.00	19.28	359.56	366.70
BRUSH REMOVAL	52HP-WT, BRUSH WINDROWER	FEB	2004	.50	.55	7.13	2.76	5.50	.00	.00	.47	8.72	15.85
BRUSH REMOVAL	52HP-WT, 9' ROTARY MOWER	FEB	2004	.50	.55	4.83	2.74	5.50	.00	.00	.47	8.71	13.54
DORMANT SPRAY	52HP-WT, BLAST SPRAYER	MAR	2004	.33	.40	5.41	3.16	4.00	.00	44.78	2.58	54.51	59.92
FERTILIZE	52HP-WT, VICON FERT SPREADER	MAR	2004	.50	.55	6.04	2.41	5.50	.00	21.00	1.43	30.34	36.38
RENT BEEHIVES	1 1/2 BEEHIVES PER ACRE	APR	2004	.00	.00	.00	.00	.00	52.50	.00	2.23	54.73	54.73
PETAL FALL SPRAY	52HP-WT, BLAST SPRAYER	APR	2004	.33	.40	5.41	3.16	4.00	.00	11.85	.81	19.81	25.22
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	APR	2004	.33	.40	5.41	3.16	4.00	.00	26.50	1.43	35.09	40.49
FROST CONTROL	WIND MACHINE	APR	2004	.00	2.00	164.27	92.79	30.00	.00	.00	5.22	128.01	292.28
FROST CONTROL	FROST ALARM & THERMOMETERS	APR	2004	.00	.00	2.92	.00	.00	.00	.00	.00	.00	2.92
FROST CONTROL	UNDERTREE SPRINKLERS	APR	2004	.00	.00	52.25	10.00	.00	15.00	.00	1.06	26.06	78.31
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA	2004	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY	2004	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
FRT FLY SPY	52HP-WT, BLAST SPRAYER	MAY	2004	.33	.40	5.41	3.16	4.00	.00	16.12	.82	24.10	29.51
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	MAY	2004	.40	.48	4.39	6.32	4.80	.00	7.04	.64	18.80	23.19
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY	2004	.33	.40	5.41	3.16	4.00	.00	26.50	1.19	34.85	40.25
GA SPRAY	52HP-WT, BLAST SPRAYER	MAY	2004	.33	.40	5.41	3.16	4.00	.00	40.00	1.67	48.83	54.23
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN	2004	.33	.40	5.41	3.16	4.00	.00	8.70	.45	16.30	21.71
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	JUN	2004	.67	.74	6.47	3.67	7.40	.00	.00	.31	11.38	17.86
FRT FLY SPY (3X)	APPLIED BY HELICOPTER	JUN-JUL	2004	.00	.00	.00	.00	.00	45.00	10.56	1.57	57.13	57.13
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	JUL	2004	.40	.48	4.39	6.32	4.80	.00	9.66	.44	21.22	25.61
HARVEST (7 TONS)	PICKING, SUPERVISE, SWAMP, LOAD	JUL	2004	.00	.00	.00	.00	.00	2240.00	.00	47.60	2287.60	2287.60
HARVEST (7 TONS)	CUSTOM HAUL FRUIT TO WAREHOUSE	JUL	2004	.00	.00	.00	.00	.00	70.00	.00	1.49	71.49	71.49
CLEANUP SPRAY	52HP-WT, 100-GAL SPRAYER	JUL	2004	.33	.40	5.41	3.16	4.00	.00	.70	.17	8.03	13.44
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG	2004	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	SEP	2004	.67	.74	6.47	3.67	7.40	.00	.00	.08	11.15	17.62
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT	2004	.40	.48	4.39	6.32	4.80	.00	7.04	.00	18.16	22.55
GOPHER CONTROL	HAND LABOR	ANN	2004	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	AERIAL APPLIC & SPRAY COST	ANN	2004	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	1/2 TON PICKUP	ANN	2004	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN	2004	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN	2004	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN	2004	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN	2004	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN	2004	.00	.00	57.57	.00	.00	.00	.00	.00	.00	57.57
LAND COST	INTEREST ON LAND	ANN	2004	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON ESTABLISHMENT COST	ANN	2004	.00	.00	1218.93	.00	.00	.00	.00	.00	.00	1218.93
TOTAL PER ACRE				22.29	71.49	2310.94	244.32	713.99	2954.50	309.05	135.61	4357.46	6668.40

TABLE 6G: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 7.

Month	Operation	Material and/or Service
Fall	Spray	12 Lbs. Copper Sulfate @ \$2.53/Lb. 1 Pint Nu-Film @ \$3.68/Pt.
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Tree Trunks	2.2 Gal. Paint @ \$8/Gal.
Mar.	Dormant Spray	4 Gal. Superior Oil @ \$2.45/Gal. 4 Pt. Lorsban @ \$5.57/Pt. 1 Gal. Liquid Zinc @ \$12.70/Gal.
Mar.	Fertilize	60 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Rent Beehives	1.5 Beehives @ \$35.00/Hive
Apr.	Petal Fall Spray	5 Lbs. Solubar @ \$.87/Lb. 10 Lbs. Wetable Sulfur @ \$.75/Lb.
Apr.	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wetable Sulfur @ \$.75/Lb.
Apr.	Frost Control	Irrigation/Electrical Charge @ \$15.00/Acre
May	Fruit Fly Spray	2 Lbs. Guthion @ \$6.56/Lb. 4 Lbs. Wetable Sulfur @ \$.75/Lb.
May	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
May	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wetable Sulfur @ \$.75/Lb.
May	GA Spray	GA Spray @ \$40.00/Acre
June	Fruit Fly Spray	3 Pts. Malathion @ \$2.90/Pt.
June - July	Fruit Fly Spray (3x)	1 Pt. Cythion-ULV per application @ \$3.52/Pt. Helicopter applied @ \$15.00/Acre

TABLE 6G: CONTINUED

Month	Operation	Material and/or Service
July	Apply Herbicide	.5 Qt. Roundup @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt. .33 Qt. 2-4-D @ \$7.94/Qt.
July 7.0	Harvest	Pick, Supervise, Swamp & Load Tons of Fruit @ \$.16/Lb.
July	Harvest	Haul 7.0 Tons of Fruit @ \$10/Ton
July	Cleanup Spray	.5 Lbs. Sevin @ \$1.41/Lb.
Oct.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Spray Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

TABLE 7G: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY (272 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON; YEAR 7

		PRICE OR	VALUE OR	YOUR
	UNIT	COST/UNIT	QUANTITY	FARM

VARIABLE COSTS		\$		\$
PAINT	GAL.	8.00	2.20	17.60
NITROGEN-ACTUAL	LB.	.35	135.00	47.25
COPPER SULFATE	LB.	2.53	12.00	30.36
NU-FILM	PINT	3.68	1.00	3.68
SUPERIOR OIL	GAL.	2.45	4.00	9.80
LIQUID ZINC 9%	GAL.	12.70	1.00	12.70
LORSBAN	PINT	5.57	4.00	22.28
MILDEW SPRAY	ACRE	25.00	2.00	50.00
SOLUBOR 25.5%	LB.	.87	5.00	4.35
WETABLE SULFUR	LB.	.75	18.00	13.50
ROUNDUP-RT	QT.	11.59	1.50	17.38
X-77	PINT	2.48	1.50	3.72
GUTHION (50%WP)	LB.	6.56	2.00	13.12
GA SPRAY	ACRE	40.00	1.00	40.00
CYTHION-ULV	PINT	3.52	3.00	10.56
HELICOPTER APPLICAT.	ACRE	15.00	3.00	45.00
MALATHION 57	PINT	2.90	3.00	8.70
SEVIN 80F	LB.	1.41	.50	.70
2-4-D	QT.	7.94	.33	2.62
GASTOXIN	TAB.	.07	10.00	.72
MOUSE CONTROL	ACRE	12.00	1.00	12.00
RENT BEEHIVES	HIVE	35.00	1.50	52.50
IRRIG/ELECT CHARGE	ACRE	135.00	1.00	135.00
HARVEST COST	TON	320.00	7.00	2240.00
CUSTOM HAULING	TON	10.00	7.00	70.00
TRACTOR REPAIR	ACRE	14.17	1.00	14.17
TRACTOR FUEL/LUBE	ACRE	17.12	1.00	17.12
MACHINERY REPAIRS	ACRE	124.82	1.00	124.82
MACHINE FUEL/LUBE	ACRE	88.21	1.00	88.21
CASUAL LABOR	HOURL	7.00	31.72	222.04
LABOR (TRAC/MACH)	HOURL	10.00	20.92	209.20
SUPERVISOR LABOR	HOURL	15.00	18.85	282.75
INTEREST ON OP. CAP.	ACRE	135.61	1.00	135.61
OVERHEAD	ACRE	400.00	1.00	400.00

TOTAL VARIABLE COST				4357.46

FIXED COSTS		\$		\$
TRACTOR DEPRECIATION	ACRE	25.20	1.00	25.20
TRACTOR INTEREST	ACRE	26.11	1.00	26.11
TRACTOR INSURANCE	ACRE	1.84	1.00	1.84
TRACTOR TAXES	ACRE	5.53	1.00	5.53
MACHINE DEPRECIATION*	ACRE	250.23	1.00	250.23
MACHINE INTEREST*	ACRE	269.14	1.00	269.14
MACHINE INSURANCE*	ACRE	18.94	1.00	18.94
MACHINE TAXES*	ACRE	37.46	1.00	37.46
ESTAB COST INTEREST	ACRE	1218.93	1.00	1218.93
INTEREST ON LAND	ACRE	400.00	1.00	400.00
LAND TAXES YR 7	ACRE	57.57	1.00	57.57

TOTAL FIXED COST				2310.94

TOTAL COST				6668.40

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5H: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR ESTABLISHING A HIGH DENSITY (136 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - YEAR 8

		VARIABLE COST											
OPERATION	TOOLING	MTH	YEAR	MACH HOURS	LABOR HOURS	TOTAL	FUEL,				TOTAL	TOTAL	
						FIXED COST	LUBE, & REPAIRS	LABOR	SERVICE MATER.	INTER.	VARIABLE COST	COST	
						\$	\$	\$	\$	\$	\$	\$	
PULL 1/2 TREES	CUSTOM HIRED, PULL 136 TREES	FALL	2004	.00	.00	.00	.00	.00	408.00	.00	31.79	439.79	439.79
FALL SPRAY	52HP-WT, BLAST SPRAYER	FALL	2004	.33	.40	5.41	3.16	4.00	.00	34.04	3.21	44.41	49.81
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL	2004	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL	2004	.60	1.44	11.84	3.27	12.24	.00	9.60	1.96	27.06	38.91
PRUNE	LABOR, PRUNING TOOLS, LADDERS	FEB	2005	.00	19.00	3.57	1.14	169.00	.00	.00	9.64	179.78	183.35
BRUSH REMOVAL	52HP-WT, BRUSH WINDROWER	FEB	2005	.50	.55	7.13	2.76	5.50	.00	.00	.47	8.72	15.85
BRUSH REMOVAL	52HP-WT, 9' ROTARY MOWER	FEB	2005	.50	.55	4.83	2.74	5.50	.00	.00	.47	8.71	13.54
DORMANT SPRAY	52HP-WT, BLAST SPRAYER	MAR	2005	.33	.40	5.41	3.16	4.00	.00	44.78	2.58	54.51	59.92
FERTILIZE	52HP-WT, VICON FERT SPREADER	MAR	2005	.50	.55	6.04	2.41	5.50	.00	21.00	1.43	30.34	36.38
RENT BEEHIVES	1 1/2 BEEHIVES PER ACRE	APR	2005	.00	.00	.00	.00	.00	52.50	.00	2.23	54.73	54.73
PETAL FALL SPRAY	52HP-WT, BLAST SPRAYER	APR	2005	.33	.40	5.41	3.16	4.00	.00	11.85	.81	19.81	25.22
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	APR	2005	.33	.40	5.41	3.16	4.00	.00	26.50	1.43	35.09	40.49
FROST CONTROL	WIND MACHINE	APR	2005	.00	2.00	164.27	92.79	30.00	.00	.00	5.22	128.01	292.28
FROST CONTROL	FROST ALARM & THERMOMETERS	APR	2005	.00	.00	2.92	.00	.00	.00	.00	.00	.00	2.92
FROST CONTROL	UNDERTREE SPRINKLERS	APR	2005	.00	.00	52.25	10.00	.00	15.00	.00	1.06	26.06	78.31
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA	2005	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY	2005	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
FRT FLY SPY	52HP-WT, BLAST SPRAYER	MAY	2005	.33	.40	5.41	3.16	4.00	.00	16.12	.82	24.10	29.51
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	MAY	2005	.40	.48	4.39	6.32	4.80	.00	7.04	.64	18.80	23.19
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY	2005	.33	.40	5.41	3.16	4.00	.00	26.50	1.19	34.85	40.25
GA SPRAY	52HP-WT, BLAST SPRAYER	MAY	2005	.33	.40	5.41	3.16	4.00	.00	40.00	1.67	48.83	54.23
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN	2005	.33	.40	5.41	3.16	4.00	.00	8.70	.45	16.30	21.71
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	JUN	2005	.67	.74	6.47	3.67	7.40	.00	.00	.31	11.38	17.86
FRT FLY SPY (3X)	APPLIED BY HELICOPTER	JUN-JUL	2005	.00	.00	.00	.00	.00	45.00	10.56	1.57	57.13	57.13
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	JUL	2005	.40	.48	4.39	6.32	4.80	.00	9.66	.44	21.22	25.61
HARVEST (5.25 T)	PICKING, SUPERVISE, SWAMP, LOAD	JUL	2005	.00	.00	.00	.00	.00	1680.00	.00	35.70	1715.70	1715.70
HARVEST (5.25 T)	CUSTOM HAUL FRUIT TO WAREHOUSE	JUL	2005	.00	.00	.00	.00	.00	52.50	.00	1.12	53.62	53.62
CLEANUP SPRAY	52HP-WT, 100-GAL SPRAYER	JUL	2005	.33	.40	5.41	3.16	4.00	.00	.70	.17	8.03	13.44
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG	2005	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	SEP	2005	.67	.74	6.47	3.67	7.40	.00	.00	.08	11.15	17.62
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT	2005	.40	.48	4.39	6.32	4.80	.00	7.04	.00	18.16	22.55
GOPHER CONTROL	HAND LABOR	ANN	2005	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	AERIAL APPLIC & SPRAY COST	ANN	2005	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	1/2 TON PICKUP	ANN	2005	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN	2005	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN	2005	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN	2005	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN	2005	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN	2005	.00	.00	57.57	.00	.00	.00	.00	.00	.00	57.57
LAND COST	INTEREST ON LAND	ANN	2005	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
INTEREST COST	INTEREST ON ESTABLISHMENT COST	ANN	2005	.00	.00	1144.34	.00	.00	.00	.00	.00	.00	1144.34
TOTAL PER ACRE				22.29	52.49	2232.78	243.18	544.99	2785.00	301.05	144.86	4019.07	6251.85

TABLE 6H: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - YEAR 8.

Month	Operation	Material and/or Service
Fall	Spray	12 Lbs. Copper Sulfate @ \$2.53/Lb. 1 Pint Nu-Film @ \$3.68/Pt.
Fall	Pull 1/2 Trees	136 Trees @ \$3.00/Tree
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Tree Trunks	1.2 Gal. Paint @ \$8/Gal.
Mar.	Dormant Spray	4 Gal. Superior Oil @ \$2.45/Gal. 4 Pt. Lorsban @ \$5.57/Pt. 1 Gal. Liquid Zinc @ \$12.70/Gal.
Mar.	Fertilize	60 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Rent Beehives	1.5 Beehives @ \$35.00/Hive
Apr.	Petal Fall Spray	5 Lbs. Solubar @ \$.87/Lb. 10 Lbs. Wettable Sulfur @ \$.75/Lb.
Apr.	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wettable Sulfur @ \$.75/Lb.
Apr.	Frost Control	Irrigation/Electrical Charge @ \$15.00/Acre
May	Fruit Fly Spray	2 Lbs. Guthion @ \$6.56/Lb. 4 Lbs. Wettable Sulfur @ \$.75/Lb.
May	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
May	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wettable Sulfur @ \$.75/Lb.
May	GA Spray	GA Spray @ \$40.00/Acre
June	Fruit Fly Spray	3 Pts. Malathion @ \$2.90/Pt.

TABLE 6H: CONTINUED

Month	Operation	Material and/or Service
June - July	Fruit Fly Spray (3x)	1 Pt. Cythion-ULV per application @ \$3.52/Pt. Helicopter applied @ \$15.00/Acre
July	Apply Herbicide	.5 Qt. Roundup @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt. .33 Qt. 2-4-D @ \$7.94/Qt.
July	Harvest	Pick, Supervise, Swamp & Load 5.25 Tons of Fruit @ \$.16/Lb.
July	Harvest	Haul 5.25 Tons of Fruit @ \$10/Ton
July	Cleanup Spray	.5 Lbs. Sevin @ \$1.41/Lb.
Oct.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Spray Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

**TABLE 7H: ITEMIZED COST PER ACRE FOR ESTABLISHING A HIGH DENSITY
(136 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON;
YEAR 8**

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

VARIABLE COSTS		\$		\$	
CUT/REMOVE TREES	TREE	3.00	136.00	408.00	_____
PAINT	GAL.	8.00	1.20	9.60	_____
NITROGEN-ACTUAL	LB.	.35	135.00	47.25	_____
COPPER SULFATE	LB.	2.53	12.00	30.36	_____
NU-FILM	PINT	3.68	1.00	3.68	_____
SUPERIOR OIL	GAL.	2.45	4.00	9.80	_____
LIQUID ZINC 9%	GAL.	12.70	1.00	12.70	_____
LORSBAN	PINT	5.57	4.00	22.28	_____
MILDEW SPRAY	ACRE	25.00	2.00	50.00	_____
SOLUBOR 25.5%	LB.	.87	5.00	4.35	_____
WETABLE SULFUR	LB.	.75	18.00	13.50	_____
ROUNDUP-RT	QT.	11.59	1.50	17.38	_____
X-77	PINT	2.48	1.50	3.72	_____
GUTHION (50%WP)	LB.	6.56	2.00	13.12	_____
GA SPRAY	ACRE	40.00	1.00	40.00	_____
CYTHION-ULV	PINT	3.52	3.00	10.56	_____
HELICOPTER APPLICAT.	ACRE	15.00	3.00	45.00	_____
MALATHION 57	PINT	2.90	3.00	8.70	_____
SEVIN 80F	LB.	1.41	.50	.70	_____
2-4-D	QT.	7.94	.33	2.62	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
RENT BEEHIVES	HIVE	35.00	1.50	52.50	_____
IRRIG/ELECT CHARGE	ACRE	135.00	1.00	135.00	_____
HARVEST COST	TON	320.00	5.25	1680.00	_____
CUSTOM HAULING	TON	10.00	5.25	52.50	_____
TRACTOR REPAIR	ACRE	14.17	1.00	14.17	_____
TRACTOR FUEL/LUBE	ACRE	17.12	1.00	17.12	_____
MACHINERY REPAIRS	ACRE	123.68	1.00	123.68	_____
MACHINE FUEL/LUBE	ACRE	88.21	1.00	88.21	_____
CASUAL LABOR	HOUR	7.00	17.22	120.54	_____
LABOR (TRAC/MACH)	HOUR	10.00	20.92	209.20	_____
SUPERVISOR LABOR	HOUR	15.00	14.35	215.25	_____
INTEREST ON OP. CAP.	ACRE	144.86	1.00	144.86	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____

TOTAL VARIABLE COST				4019.07	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	25.20	1.00	25.20	_____
TRACTOR INTEREST	ACRE	26.11	1.00	26.11	_____
TRACTOR INSURANCE	ACRE	1.84	1.00	1.84	_____
TRACTOR TAXES	ACRE	5.53	1.00	5.53	_____
MACHINE DEPRECIATION*	ACRE	247.61	1.00	247.61	_____
MACHINE INTEREST*	ACRE	268.39	1.00	268.39	_____
MACHINE INSURANCE*	ACRE	18.88	1.00	18.88	_____
MACHINE TAXES*	ACRE	37.30	1.00	37.30	_____
ESTAB COST INTEREST	ACRE	1144.34	1.00	1144.34	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____
LAND TAXES YR 8	ACRE	57.57	1.00	57.57	_____

TOTAL FIXED COST				2232.78	_____
TOTAL COST				6251.85	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 5I: SCHEDULE OF OPERATIONS AND ESTIMATED COSTS PER ACRE FOR A HIGH DENSITY (136 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - MATURE TREES

VARIABLE COST												

OPERATION	TOOLING	MTH YEAR	MACH HOURS	LABOR HOURS	TOTAL FIXED COST	FUEL, LUBE, & REPAIRS	LABOR	SERVICE	MATER.	INTER.	TOTAL VARIABLE COST	TOTAL COST

\$												
FALL SPRAY	52HP-WT, BLAST SPRAYER	FALL 2005	.33	.40	5.41	3.16	4.00	.00	34.04	3.21	44.41	49.81
FERTILIZE	52HP-WT, VICON FERT SPREADER	FALL 2005	.50	.55	6.04	2.41	5.50	.00	26.25	2.66	36.82	42.85
PAINT TREE TRUNK	52HP-WT, PAINT SPRAYER, BACKFK	FALL 2005	.60	1.44	11.84	3.27	12.24	.00	12.00	2.14	29.65	41.49
PRUNE	LABOR, PRUNING TOOLS, LADDERS	FEB 2006	.00	33.33	6.26	2.00	299.95	.00	.00	17.11	319.06	325.32
PRUNE	CHAINSAW USED WITH PRUNING	FEB 2006	1.00	.00	3.82	3.13	.00	.00	.00	.18	3.31	7.13
BRUSH REMOVAL	CHAINSAW	FEB 2006	1.00	2.00	3.82	3.13	20.00	.00	.00	1.31	24.44	28.26
BRUSH REMOVAL	52HP-WT, TRAILER	FEB 2006	1.00	2.00	8.32	4.31	17.00	.00	.00	1.21	22.52	30.84
BRUSH REMOVAL	52HP-WT, BRUSH WINDROWER	FEB 2006	.50	.55	7.13	2.76	5.50	.00	.00	.47	8.72	15.85
BRUSH REMOVAL	52HP-WT, 9' ROTARY MOWER	FEB 2006	.50	.55	4.83	2.74	5.50	.00	.00	.47	8.71	13.54
DORMANT SPRAY	52HP-WT, BLAST SPRAYER	MAR 2006	.33	.40	5.41	3.16	4.00	.00	44.78	2.58	54.51	59.92
FERTILIZE	52HP-WT, VICON FERT SPREADER	MAR 2006	.50	.55	6.04	2.41	5.50	.00	21.00	1.43	30.34	36.38
RENT BEEHIVES	1 1/2 BEEHIVES PER ACRE	APR 2006	.00	.00	.00	.00	.00	52.50	.00	2.23	54.73	54.73
PETAL FALL SPRAY	52HP-WT, BLAST SPRAYER	APR 2006	.33	.40	5.41	3.16	4.00	.00	11.85	.81	19.81	25.22
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	APR 2006	.33	.40	5.41	3.16	4.00	.00	26.50	1.43	35.09	40.49
FROST CONTROL	WIND MACHINE	APR 2006	.00	2.00	164.27	92.79	30.00	.00	.00	5.22	128.01	292.28
FROST CONTROL	FROST ALARM & THERMOMETERS	APR 2006	.00	.00	2.92	.00	.00	.00	.00	.00	.00	2.92
FROST CONTROL	UNDERTREE SPRINKLERS	APR 2006	.00	.00	52.25	10.00	.00	15.00	.00	1.06	26.06	78.31
IRRIGATE (40 IN)	UNDER TREE SPRINKLER SYSTEM	SEA 2006	.00	10.00	183.83	33.75	100.00	120.00	.00	10.78	264.53	448.36
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	MAY 2006	.67	.74	6.47	3.67	7.40	.00	.00	.39	11.46	17.94
FRT FLY SPY	52HP-WT, BLAST SPRAYER	MAY 2006	.33	.40	5.41	3.16	4.00	.00	16.12	.82	24.10	29.51
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	MAY 2006	.40	.48	4.39	6.32	4.80	.00	7.04	.64	18.80	23.19
MILDEW SPRAY	52HP-WT, BLAST SPRAYER	MAY 2006	.33	.40	5.41	3.16	4.00	.00	26.50	1.19	34.85	40.25
GA SPRAY	52HP-WT, BLAST SPRAYER	MAY 2006	.33	.40	5.41	3.16	4.00	.00	40.00	1.67	48.83	54.23
FRT FLY SPRAY	52HP-WT, BLAST SPRAYER	JUN 2006	.33	.40	5.41	3.16	4.00	.00	8.70	.45	16.30	21.71
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	JUN 2006	.67	.74	6.47	3.67	7.40	.00	.00	.31	11.38	17.86
FRT FLY SPY (3X)	APPLIED BY HELICOPTER	JUN-JUL 2006	.00	.00	.00	.00	.00	45.00	10.56	1.57	57.13	57.13
APPLY HERBICIDE	52HP-WT, 100-GAL SPRAYER	JUL 2006	.40	.48	4.39	6.32	4.80	.00	9.66	.44	21.22	25.61
HARVEST (8 TONS)	PICKING, SUPERVISE, SWAMP, LOAD	JUL 2006	.00	.00	.00	.00	.00	2560.00	.00	54.40	2614.40	2614.40
HARVEST (8 TONS)	CUSTOM HAUL FRUIT TO WAREHOUSE	JUL 2006	.00	.00	.00	.00	.00	80.00	.00	1.70	81.70	81.70
CLEANUP SPRAY	52HP-WT, 100-GAL SPRAYER	JUL 2006	.33	.40	5.41	3.16	4.00	.00	.70	.17	8.03	13.44
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	AUG 2006	.67	.74	6.47	3.67	7.40	.00	.00	.16	11.23	17.70
MOW ORCHARD	52HP-WT, 9' ROTARY MOWER	SEP 2006	.67	.74	6.47	3.67	7.40	.00	.00	.08	11.15	17.62
APPLY HERBICIDE	52HP-WT, 100 GAL SPRAYER	OCT 2006	.40	.48	4.39	6.32	4.80	.00	7.04	.00	18.16	22.55
GOPHER CONTROL	HAND LABOR	ANN 2006	.00	2.00	.00	.00	14.00	.00	.72	.63	15.35	15.35
MOUSE CONTROL	AERIAL APPLIC & SPRAY COST	ANN 2006	.00	.00	.00	.00	.00	12.00	.00	.51	12.51	12.51
MISC USE	1/2 TON PICKUP	ANN 2006	7.14	7.85	35.61	23.42	117.75	.00	.00	6.00	147.17	182.78
MISC USE	4-WHEEL RTV	ANN 2006	5.70	.00	12.24	5.74	.00	.00	.00	.24	5.99	18.22
MISC USE	MACHINE SHED AND SHOP	ANN 2006	.00	.00	37.64	.71	.00	.00	.00	.03	.74	38.39
MISC USE	SHOP TOOLS	ANN 2006	.00	.00	14.93	.00	.00	.00	.00	.00	.00	14.93
OVERHEAD	UTILITIES, LEGAL, ACCTNG, ETC.	ANN 2006	.00	.00	.00	.00	.00	400.00	.00	17.00	417.00	417.00
TAXES	LAND	ANN 2006	.00	.00	72.72	.00	.00	.00	.00	.00	.00	72.72
LAND COST	INTEREST ON LAND	ANN 2006	.00	.00	400.00	.00	.00	.00	.00	.00	.00	400.00
ESTABLISHMT COST	AMORTIZED OVER 17 YEARS @ 8.5%	ANN 2006	.00	.00	1592.61	.00	.00	.00	.00	.00	.00	1592.61

TOTAL PER ACRE			25.29	70.82	2714.85	254.62	712.94	3284.50	303.45	142.71	4698.21	7413.06

TABLE 6I: MATERIALS AND/OR SERVICES APPLIED PER ACRE BY OPERATION - MATURE TREES.

Month	Operation	Material and/or Service
Fall	Spray	12 Lbs. Copper Sulfate @ \$2.53/Lb. 1 Pint Nu-Film @ \$3.68/Pt.
Fall	Fertilize	75 Lbs. Nitrogen @ \$.35/Lb.
Fall	Paint Tree Trunks	1.5 Gal. Paint @ \$8/Gal.
Mar.	Dormant Spray	4 Gal. Superior Oil @ \$2.45/Gal. 4 Pt. Lorsban @ \$5.57/Pt. 1 Gal. Liquid Zinc @ \$12.70/Gal.
Mar.	Fertilize	60 Lbs. Nitrogen @ \$.35/Lb.
Sea.	Irrigate	Irrigation/Electrical Charge @ \$120/Acre
Apr.	Rent Beehives	1.5 Beehives @ \$35.00/Hive
Apr.	Petal Fall Spray	5 Lbs. Solubar @ \$.87/Lb. 10 Lbs. Wettable Sulfur @ \$.75/Lb.
Apr.	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wettable Sulfur @ \$.75/Lb.
Apr.	Frost Control	Irrigation/Electrical Charge @ \$15.00/Acre
May	Fruit Fly Spray	2 Lbs. Guthion @ \$6.56/Lb. 4 Lbs. Wettable Sulfur @ \$.75/Lb.
May	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
May	Mildew Spray	Mildew Spray @ \$25/Acre 2 Lbs. Wettable Sulfur @ \$.75/Lb.
May	GA Spray	GA Spray @ \$40.00/Acre
June	Fruit Fly Spray	3 Pts. Malathion @ \$2.90/Pt.

TABLE 6I: CONTINUED

Month	Operation	Material and/or Service
June - July	Fruit Fly Spray (3x)	1 Pt. Cythion-ULV per application @ \$3.52/Pt. Helicopter applied @ \$15.00/Acre
July	Apply Herbicide	.5 Qt. Roundup @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt. .33 Qt. 2-4-D @ \$7.94/Qt.
July	Harvest	Pick, Supervise, Swamp & Load 8.0 Tons of Fruit @ \$.16/Lb.
July	Harvest	Haul 8.0 Tons of Fruit @ \$10/Ton
July	Cleanup Spray	.5 Lbs. Sevin @ \$1.41/Lb.
Oct.	Apply Herbicide	.5 Qt. Roundup-RT @ \$11.59/Qt. .5 Pt. X-77 @ \$2.48/Pt.
Ann.	Gopher Control	10 Tablets of Gastoxin @ \$.072/Tablet
Ann.	Mouse Control	Aerial Application & Spray Cost @ \$12/Acre
Ann.	Overhead	\$400/Acre

TABLE 7I: ITEMIZED COST PER ACRE FOR A HIGH DENSITY (136 TREES) SWEET CHERRY ORCHARD IN CENTRAL WASHINGTON - MATURE TREES

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

VARIABLE COSTS		\$		\$	
PAINT	GAL.	8.00	1.50	12.00	_____
NITROGEN-ACTUAL	LB.	.35	135.00	47.25	_____
COPPER SULFATE	LB.	2.53	12.00	30.36	_____
NU-FILM	PINT	3.68	1.00	3.68	_____
SUPERIOR OIL	GAL.	2.45	4.00	9.80	_____
LIQUID ZINC 9%	GAL.	12.70	1.00	12.70	_____
LORSBAN	PINT	5.57	4.00	22.28	_____
MILDEW SPRAY	ACRE	25.00	2.00	50.00	_____
SOLUBOR 25.5%	LB.	.87	5.00	4.35	_____
WETABLE SULFUR	LB.	.75	18.00	13.50	_____
ROUNDUP-RT	QT.	11.59	1.50	17.38	_____
X-77	PINT	2.48	1.50	3.72	_____
GUTHION (50%WP)	LB.	6.56	2.00	13.12	_____
GA SPRAY	ACRE	40.00	1.00	40.00	_____
CYTHON-ULV	PINT	3.52	3.00	10.56	_____
HELICOPTER APPLICAT.	ACRE	15.00	3.00	45.00	_____
MALATHION 57	PINT	2.90	3.00	8.70	_____
SEVIN 80F	LB.	1.41	.50	.70	_____
2-4-D	QT.	7.94	.33	2.62	_____
GASTOXIN	TAB.	.07	10.00	.72	_____
MOUSE CONTROL	ACRE	12.00	1.00	12.00	_____
RENT BEEHIVES	HIVE	35.00	1.50	52.50	_____
IRRIG/ELECT CHARGE	ACRE	135.00	1.00	135.00	_____
HARVEST COST	TON	320.00	8.00	2560.00	_____
CUSTOM HAULING	TON	10.00	8.00	80.00	_____
TRACTOR REPAIR	ACRE	15.68	1.00	15.68	_____
TRACTOR FUEL/LUBE	ACRE	18.93	1.00	18.93	_____
MACHINERY REPAIRS	ACRE	130.54	1.00	130.54	_____
MACHINE FUEL/LUBE	ACRE	89.47	1.00	89.47	_____
CASUAL LABOR	HOUR	7.00	28.72	201.04	_____
LABOR (TRAC/MACH)	HOUR	10.00	23.92	239.20	_____
SUPERVISOR LABOR	HOUR	15.00	18.18	272.70	_____
INTEREST ON OP. CAP.	ACRE	142.71	1.00	142.71	_____
OVERHEAD	ACRE	400.00	1.00	400.00	_____

TOTAL VARIABLE COST				4698.21	_____
FIXED COSTS		\$		\$	
TRACTOR DEPRECIATION	ACRE	27.87	1.00	27.87	_____
TRACTOR INTEREST	ACRE	28.87	1.00	28.87	_____
TRACTOR INSURANCE	ACRE	2.04	1.00	2.04	_____
TRACTOR TAXES	ACRE	6.11	1.00	6.11	_____
MACHINE DEPRECIATION*	ACRE	256.34	1.00	256.34	_____
MACHINE INTEREST*	ACRE	271.30	1.00	271.30	_____
MACHINE INSURANCE*	ACRE	19.09	1.00	19.09	_____
MACHINE TAXES*	ACRE	37.92	1.00	37.92	_____
AMORTIZED ESTAB COST	ACRE	1592.61	1.00	1592.61	_____
INTEREST ON LAND	ACRE	400.00	1.00	400.00	_____
LAND TAXES	ACRE	72.72	1.00	72.72	_____

TOTAL FIXED COST				2714.85	_____
TOTAL COST				7413.06	_____

*INCLUDES MACHINE SHED & SHOP, WIND MACHINE AND IRRIGATION SYSTEM.

TABLE 8: MACHINERY AND BUILDING DATA

Machine Name	Purchase Price (\$)	Years of Use	Salvage Value (\$)	Annual Repair Cost (\$)	Annual Hours of Use	Gallons of Fuel Use Per Hour
55HP-Wheel Tractor	21,000	15	5,000	600	400	1.5 Diesel
4WD-ATV	6,000	10	1,500	150	400	.5 Gas
Pickup	25,000	15	3,000	450	600	2.0 Gas
9' Disk	9,200	15	1,200	220	100	
10' Cultipack	2,100	15	300	15	50	
100 Gallon Sprayer	2,000	10	500	750	150	
Backfork	200	20	0	20	150	
PTO Blast Sprayer	14,000	10	2,800	1,250	200	
Vicon Spreader	2,500	15	800	75	50	
Front-end Loader	5,000	15	1,000	425	150	
Trailer	2,000	20	500	100	100	
Brush Windrower	2,750	10	500	110	50	
9' Rotary Mower	3,500	10	500	325	150	
Chainsaw	300	5	0	50	20	
Pruning Tools	30	4	0	0	100	
Ladder	125	10	0	12	200	
PTO Paint Sprayer	1,300	10	0	30	15	
Machine Shed & Shop	30,000	30	0	50	70 acres	
Shop Tools	10,000	20	0	0	70 acres	
Wind Machine	16,000	22	4,800	300	40 hours over 10 acres	13.0 Propane
Alarm & Thermometers	205	10	0	0	10 acres	
Irrigation System	2,150	25	0	30	1 acre	
Holding Pond	5,000	21	0	100	10 acres	

TABLE 9: HOURLY AND PER ACRE MACHINERY AND BUILDING COSTS

MACHINERY	PURCHASE PRICE	YEARS TO TRADE	ANNUAL HOURS	DEPRECIATION	INTEREST	INSURANCE	TAXES	TOTAL FIXED COST	REPAIR	FUEL AND LUBE	TOTAL VARIABLE COST	TOTAL COST
	\$							COST PER HOUR				
52HP-WHEEL TRACTOR	21,000.00	15	400	2.67	2.76	.20	.59	6.21	1.50	1.81	3.31	9.52
4-WHEEL ATV	6,000.00	10	400	1.13	.80	.06	.17	2.15	.38	.63	1.01	3.15
PICKUP	25,000.00	15	600	2.44	1.98	.14	.42	4.99	.75	2.53	3.28	8.27
9' DISK	9,200.00	15	100	5.33	4.42	.31	.94	11.00	2.20	.00	2.20	13.20
10' CULTIPACK	2,100.00	15	50	2.40	2.04	.14	.43	5.02	.30	.00	.30	5.32
100 GAL SPRAYER	2,000.00	10	60	2.50	1.77	.13	.38	4.77	12.50	.00	12.50	17.27
BACKFORK	200.00	20	150	.07	.06	.00	.01	.14	.13	.00	.13	.27
PTO BLAST SPRAYER	14,000.00	10	200	5.60	3.57	.25	.76	10.18	6.25	.00	6.25	16.43
VICON SPREADER	2,500.00	15	50	2.27	2.81	.20	.59	5.86	1.50	.00	1.50	7.36
FRONT-END LOADER	5,000.00	15	150	1.78	1.70	.12	.36	3.96	2.83	.00	2.83	6.79
TRAILER	2,000.00	20	100	.75	1.06	.08	.23	2.11	1.00	.00	1.00	3.11
BRUSH WINDROWER	2,750.00	10	50	4.50	2.76	.20	.59	8.04	2.20	.00	2.20	10.24
9' ROTARY MOWER	3,500.00	10	150	2.00	1.13	.08	.24	3.45	2.17	.00	2.17	5.62
CHAINSAW	300.00	5	20	3.00	.64	.05	.14	3.82	2.50	.63	3.13	6.95
PRUNING TOOLS	30.00	4	100	.08	.01	.00	.00	.09	.00	.00	.00	.09
LADDER	125.00	10	200	.18	.08	.01	.02	.28	.17	.00	.17	.45
PTO PAINT SPRAYER	1,300.00	10	15	8.67	3.68	.26	.78	13.39	2.00	.00	2.00	15.39
								COST PER ACRE				
MACHINE SHED & SHOP	30,000.00	30	-	14.29	18.21	1.29	3.86	37.64	.71	.00	.71	38.36
SHOP TOOLS	10,000.00	20	-	7.14	6.07	.43	1.29	14.93	.00	.00	.00	14.93
WIND MACHINE	16,000.00	22	-	50.91	88.40	6.24	18.72	164.27	30.00	62.79*	92.79	257.06
ALARM & THERMOMETERS	205.00	10	-	2.05	.87	.00	.00	2.92	.00	.00	.00	2.92
IRRIGATION SYSTEM	2,150.00	25	-	86.00	91.38	6.45	.00**	183.83	30.00	3.75	33.75	217.58
HOLDING POND	5,000.00	20	-	25.00	21.25	1.50	4.50	52.25	10.00	.00	10.00	62.25

*FUEL COST PER ACRE = (13 GALLONS X 40 HOURS X \$1.05) / 10 ACRES = \$54.60

\$54.60 X 1.15 (15% LUBE COST) = \$62.79

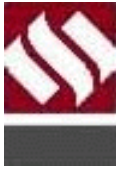
**TAXES INCLUDED IN LAND TAXES.

TABLE 10: PRICES

Item Name	Unit	Price
		\$
Soil Sample	Acre	12.00
Custom Planting of Trees	Tree	.40
Custom Ripping of Soil	Acre	100.00
Irrigation/Electrical Charge	Acre	120.00
Irrigation/Electrical Chg. (Frost Control)	Acre	15.00
Rental of Fertilizer Spreader	Acre	4.00
Rental of Grass Seeder	Acre	10.00
Rental of Beehives	Hive	35.00
Custom Helicopter Application	Acre	15.00
Pick, Supervise, Swamp & Load Cherries	Lb.	.16
Custom Hauling of Fruit	Ton	10.00
Labor:		
Crew Leader	Hour	15.00
Tractor Driver	Hour	10.00
Casual Labor	Hour	7.00
Nitrogen (Actual)	Lb.	.35
Urea (46-0-0)	Lb.	.14
Borate-46 (14.3% Boron)	Lb.	.55
Marking Stakes	Stake	.10
Trees	Tree	5.50
Paint	Gal.	8.00
Vapam	Gal.	4.24
Gramoxone	Pint	5.38
X-77	Pint	2.48
Companion Grass Seed	Lb.	1.75
Roundup-RT	Qt.	11.59
Gasotoxin	500 Tab.	35.82
Envy (2-4-D)	Qt.	7.94
Superior Oil	Gal.	2.45
Copper Sulfate	Lb.	2.53
Nu-film	Pint	3.68
Liquid Zinc Chelate 9%	Gal.	12.70
Lorsban 4E	Pint	5.57
Sevin 80F	Lb.	1.41
Solubor	Lb.	.87
Guthion (50% WP)	Lb.	6.56
Wetable Sulfur	Lb.	.75
Malathion 57	Pint	2.90
Rally-40W	Oz.	4.28
Prowl 3.3	Gal.	26.77
Demethoate 267	Pint	3.81
Cythion-ULV	Pint	3.52
Mouse Control (Application & Spray)	Acre	12.00

TABLE 10: CONTINUED

Item Name	Unit	Price
		\$
Land Taxes Yr. 1	Acre	27.27
Land Taxes Yr. 2	Acre	27.27
Land Taxes Yr. 3	Acre	27.27
Land Taxes Yr. 4	Acre	42.42
Land Taxes Yr. 5	Acre	42.42
Land Taxes Yr. 6	Acre	42.42
Land Taxes Yr. 7	Acre	57.57
Land Taxes Yr. 8	Acre	57.57
Land Taxes Mature Orchard	Acre	72.72
Gasoline Fuel	Gal.	1.10
Diesel Fuel	Gal.	1.05
Propane Fuel	Gal.	1.05



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Use pesticides with care. Apply them only to plants, animals, or sites listed on the label. When mixing and applying pesticides, follow all label precautions to protect yourself and others around you. It is violation of law to disregard label directions. If pesticides are spilled on skin or clothing, remove clothing and wash skin thoroughly. Store pesticides in their original containers and keep them out of the reach of children, pets, and livestock.

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