

PEACHCON.XLS

FILE:peachcon

AN ANALYSIS OF (MED DENSIT 217) TREES PER ACRE PEACH ORCHARD
AND
POTENTIAL PROFIT OF THE SYSTEM

Assumptions : All values in COLOR may be changed, they determine the other values

Cost of Trees (per tree)	\$6.00	Custom Planting Cost/Tree	\$0.25
Straw Cost per Bale	\$1.25	Fertilizer Cost/Ton	\$200.00
Annual Cost of Cover/Tree	\$0.00	Cost of Mouse Guards/Tree	\$0.25
Cost of Tree Training/Tree	\$0.75	Interest Rate	12.00%
Cost of Trellis/Tree	\$0.00	Harvest Cost per Bushel	\$1.89
Cost of Shelter & Post/Tree	\$0.00	Expected Peach Price per Bushel	\$20.00
Cost of Wildlife Control/Tree	\$0.15	Expected Life of Orchard (years)	15

Tree spacing _ft_ 20 10 200 217
 width length = sq.ft. trees/acre

Table 1. Site Preparation Cost for One Acre of Peaches (wholesale)

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
Bulldoze old trees		3.2			\$192.00			\$192.00
Lime (3 ton)						\$90.00		\$90.00
Real Estate Tax							\$35.00	\$35.00
Management (hours)				1.00			\$9.00	\$9.00
Total	0.0	3.2	\$0.00		\$192.00	\$90.00	\$44.00	\$326.00

Table 2. Year One Planting and Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
Ground Preparation								

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60hp tractor	0.25	0.25	\$2.25	2	\$1.95		\$4.20
Plow		0.25	\$0.00	8	\$1.07		\$1.07
60hp tractor	0.40	0.40	\$3.60	2	\$3.12		\$6.72
Disc		0.40	\$0.00	9	\$2.01		\$2.01
Pick stone & roots	0.20	0.20	\$1.20	15	\$1.15		\$2.35
Nematode Control						\$125.00	\$125.00
Sprayer	0.31	0.31	\$2.79	5	\$1.22		\$4.01
40 hp tractor		0.31	\$0.00	3	\$1.55		\$1.55
Layout	0.50	0.50	\$3.00	1	\$4.78		\$7.78
Marking	1.00		\$6.00	1	\$0.00		\$6.00
Purchase trees			\$0.00		\$0.00	\$1,302.00	\$1,302.00
Custom Plant			\$0.00		\$0.00	\$54.25	\$54.25
Water trees	2.00	1.00	\$12.00	13	\$5.86		\$17.86
Straw 1/2 bale/tr	2.00	2.00	\$12.00	15	\$11.53	\$135.63	\$159.15
Mouse Bait	0.50	0.50	\$3.00		\$0.00	\$5.00	\$8.00
Mouse Guards			\$0.00		\$0.00	\$54.25	\$54.25
Weed Control			\$0.00		\$0.00	\$20.23	\$20.23
Weed sprayer	0.62	0.62	\$5.58	5	\$2.43		\$8.01
40 hp tractor		0.62	\$0.00	3	\$3.10		\$3.10
Insect & Disease Cont			\$0.00		\$0.00	\$99.22	\$99.22
Airblast spr.	1.23	1.23	\$11.07	4	\$14.27		\$25.34
40 hp tractor		1.23	\$0.00	3	\$6.15		\$6.15
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13	\$13.61
40 hp tractor		0.30	\$0.00	3	\$1.50		\$1.50
Cultipack	0.30	0.30	\$1.80	12	\$2.03		\$3.83
Mowing	0.21	0.21	\$1.23	7	\$0.88		\$2.12
40 hp tractor		0.21	\$0.00	3	\$1.03		\$1.03
Fertilize	0.50	0.50	\$3.00	6	\$1.13	\$9.77	\$13.90
40 hp tractor		0.50	\$0.00	3	\$2.50		\$2.50
Wildlife Control	6.00	6.00	\$36.00	1	\$57.40	\$32.55	\$125.95
Trellis			\$0.00		\$0.00	\$0.00	\$0.00
Shelter/posts			\$0.00		\$0.00	\$0.00	\$0.00
Cover (Plastic)	0.00		\$0.00		\$0.00	\$0.00	\$0.00
Trickle irrigation	5.00	1.00	\$30.00	17	\$0.00		\$30.00
Real Estate Tax						\$35.00	\$35.00
Management (hours)	1.00					\$9.00	\$9.00

Total	21.32	19.13	\$136.32		\$127.33	\$1,669.77	\$223.25	\$2,156.68
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Table 3. Year Two Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
60hp tractor	0.40	0.40	\$3.60	2	\$3.12			\$6.72
Disc		0.40	\$0.00	9	\$2.01			\$2.01
Prune/training	3.62	3.62	\$32.55	1	\$34.60	\$27.90	\$54.25	\$149.30
Tree replacement	1.00	1.00	\$6.00	15	\$5.76	\$71.61		\$83.37
Herbicide spray	0.62	0.62	\$3.72	5	\$2.43	\$20.23		\$26.38
40hp tractor		0.62	\$0.00	3	\$3.10			\$3.10
Insect and Disease	1.23	1.23	\$7.38	4	\$14.27	\$99.22		\$120.87
40hp tractor		1.23	\$0.00	3	\$6.15			\$6.15
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13		\$13.61
40 hp tractor		0.30	\$0.00	3	\$1.50			\$1.50
Mouse control	0.30	0.30	\$1.80	1	\$2.87	\$3.00		\$7.67
Wildlife Control	6.00	6.00	\$36.00	1	\$57.40	\$32.55		\$125.95
Fertilizer	0.50	0.50	\$3.00	6	\$1.13	\$13.02		\$17.15
40 hp tractor		0.50	\$0.00	3	\$2.50			\$2.50
Nematode Control						\$360.00		\$360.00
Sprayer	0.31	0.31	\$2.79	5	\$1.22			\$4.01
40 hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Trickle irrigation	5.00	1.00	\$30.00	17	\$0.00			\$30.00
Real Estate Tax							\$35.00	\$35.00
Management (hours)	1.00						\$9.00	\$9.00
Total	18.88	17.84	\$125.04		\$135.15	\$638.66	\$98.25	\$997.10

Table 4. Year Three Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
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60hp tractor	0.40	0.40	\$3.60	2	\$3.12		\$6.72	
Disc		0.40	\$0.00	9	\$2.01		\$2.01	
Prune/Training	7.23	7.23	\$65.10	1	\$69.19	\$13.95	\$148.24	
Tree replacement	1.00	1.00	\$6.00	11	\$3.80	\$71.61	\$81.41	
Herbicide spray	0.31	0.31	\$1.86	5	\$1.22	\$3.74	\$6.82	
40hp tractor		0.31	\$0.00	3	\$1.55		\$1.55	
Insect and Disease	3.08	3.08	\$18.48	4	\$35.73	\$275.02	\$329.23	
40hp tractor		3.08	\$0.00	3	\$15.40		\$15.40	
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13	\$13.61	
40 hp tractor		0.30	\$0.00	3	\$1.50		\$1.50	
Wildlife control	6.00	6.00	\$36.00	1	\$57.40	\$32.55	\$125.95	
Mouse control	0.30	0.30	\$1.80	1	\$2.87	\$3.00	\$7.67	
Fertilizer	0.50	0.50	\$3.00	6	\$1.13	\$19.53	\$23.66	
40 hp tractor		0.50	\$0.00	3	\$2.50		\$2.50	
Lime (2 tons)			\$0.00		\$0.00	\$60.00	\$60.00	
Nematode Control			\$0.00		\$0.00	\$360.00	\$360.00	
Sprayer	0.31	0.31	\$2.79	5	\$1.22		\$4.01	
40 hp tractor		0.31	\$0.00	3	\$1.55		\$1.55	
Trickle Irrigation	5.00	1.00	\$30.00	17	\$0.00		\$30.00	
Real Estate Tax						\$35.00	\$35.00	
Management (hours)	1.00					\$9.00	\$9.00	
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Total	25.03	24.53	\$166.83		\$195.73	\$850.53	\$44.00	\$1,257.09

Table 5. Year Four Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
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60hp tractor	0.40	0.40	\$3.60	2	\$3.12			\$6.72
Disc		0.40	\$0.00	9	\$2.01			\$2.01
Prune	10.85	10.85	\$97.65	1	\$103.79			\$201.44
Tree replacement	1.00	1.00	\$6.00	11	\$3.80	\$43.36		\$53.15
Herbicide spray	0.31	0.31	\$1.86	5	\$1.22	\$3.74		\$6.82
40hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Insect and Disease	3.08	3.08	\$18.48	4	\$35.73	\$275.02		\$329.23

40hp tractor		3.08	\$0.00	3	\$15.40		\$15.40	
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13	\$13.61	
40 hp tractor		0.30	\$0.00	3	\$1.50		\$1.50	
Mouse control	0.30	0.30	\$1.80	1	\$2.87	\$4.00	\$8.67	
Wildlife control	6.00	6.00	\$36.00	1	\$57.40	\$32.55	\$125.95	
Fertilizer	0.50	0.50	\$3.00	6	\$1.13	\$26.04	\$30.17	
40 hp tractor		0.50	\$0.00	3	\$2.50		\$2.50	
Nematode Control			\$0.00		\$0.00	\$360.00	\$360.00	
Sprayer	0.31	0.31	\$2.79	5	\$1.22		\$4.01	
40 hp tractor		0.31	\$0.00	3	\$1.55		\$1.55	
Trickle Irrigation	5.00	1.00	\$30.00	17	\$0.00	\$30.00	\$60.00	
Real Estate Tax						\$35.00	\$35.00	
Management (hours)	1.50					\$13.50	\$13.50	
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Total	27.65	28.15	\$199.38		\$230.32	\$785.84	\$48.50	\$1,264.04

Table 6. Year Five Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
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60hp tractor	0.40	0.40	\$3.60	2	\$3.12			\$6.72
Disc		0.40	\$0.00	9	\$2.01			\$2.01
Prune	14.47	14.47	\$130.20	1	\$138.39			\$268.59
Tree replacement	0.50	0.50	\$3.00	11	\$1.90	\$28.90		\$33.80
Herbicide spray	0.31	0.31	\$1.86	5	\$1.22	\$3.74		\$6.82
40hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Insect and Disease	3.08	3.08	\$18.48	4	\$35.73	\$275.02		\$329.23
40hp tractor		3.08	\$0.00	3	\$15.40			\$15.40
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13		\$13.61
40 hp tractor		0.30	\$0.00	3	\$1.50			\$1.50
Mouse control	0.30	0.30	\$1.80	1	\$2.87	\$4.00		\$8.67
Wildlife control	6.00	6.00	\$36.00	1	\$57.40	\$32.55		\$125.95
Fertilizer	0.50	0.50	\$3.00	6	\$1.13	\$26.04		\$30.17
40 hp tractor		0.50	\$0.00	3	\$2.50			\$2.50
Nematode Control			\$0.00		\$0.00	\$360.00		\$360.00

Sprayer	0.31	0.31	\$2.79	5	\$1.22			\$4.01
40 hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Trickle Irrigation	5.00	1.00	\$30.00	17	\$0.00	\$30.00		\$60.00
Real Estate Tax							\$35.00	\$35.00
Management (hours)	2.00						\$18.00	\$18.00
Total	30.77	31.27	\$228.93		\$263.02	\$771.38	\$53.00	\$1,316.34

Table 7. Year Six Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
60hp tractor	0.40	0.40	\$3.60	2	\$3.12			\$6.72
Disc		0.40	\$0.00	9	\$2.01			\$2.01
Prune	14.47	14.47	\$130.20	1	\$138.39			\$268.59
Tree replacement	0.50	0.50	\$3.00	11	\$1.90	\$28.90		\$33.80
Herbicide spray	0.31	0.31	\$1.86	5	\$1.22	\$3.74		\$6.82
40hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Insect and Disease	3.08	3.08	\$18.48	4	\$35.73	\$275.02		\$329.23
40hp tractor		3.08	\$0.00	3	\$15.40			\$15.40
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13		\$13.61
40 hp tractor		0.30	\$0.00	3	\$1.50			\$1.50
Mouse control	0.30	0.30	\$1.80	1	\$2.87	\$4.00		\$8.67
Wildlife control	6.00	6.00	\$36.00	1	\$57.40	\$32.55		\$125.95
Fertilizer	0.50	0.50	\$3.00	6	\$1.13	\$26.04		\$30.17
40 hp tractor		0.50	\$0.00	3	\$2.50			\$2.50
Nematode Control			\$0.00		\$0.00	\$360.00		\$360.00
Sprayer	0.31	0.31	\$2.79	5	\$1.22			\$4.01
40 hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Trickle Irrigation	5.00	1.00	\$30.00	17	\$0.00	\$30.00		\$60.00
Paint trunks	1.00	1.00	\$6.00	1	\$9.57	\$15.00		\$30.57
Real Estate Tax							\$35.00	\$35.00
Management (hours)	3.00						\$27.00	\$27.00
Total	31.77	32.27	\$234.93		\$272.59	\$786.38	\$62.00	\$1,355.90

Table 8. Year Seven Growing Cost for One Acre of Peaches

Activity	Labor hours	Equipment hours	Labor cost	Equipment code	Equipment cost	Material cost	Other cost	Total
60hp tractor	0.40	0.40	\$3.60	2	\$3.12			\$6.72
Disc		0.40	\$0.00	9	\$2.01			\$2.01
Prune	8.00	8.00	\$72.00	1	\$76.53			\$148.53
Tree replacement	0.50	0.50	\$3.00	11	\$1.90	\$28.90		\$33.80
Herbicide spray	0.31	0.31	\$1.86	5	\$1.22	\$3.74		\$6.82
40hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Insect and Disease	3.08	3.08	\$18.48	4	\$35.73	\$275.02		\$329.23
40hp tractor		3.08	\$0.00	3	\$15.40			\$15.40
Cover Crop	0.30	0.30	\$1.80	6	\$0.68	\$11.13		\$13.61
40 hp tractor		0.30	\$0.00	3	\$1.50			\$1.50
Mouse control	0.30	0.30	\$1.80	1	\$2.87	\$4.00		\$8.67
Wildlife control	6.00	6.00	\$36.00	1	\$57.40	\$32.55		\$125.95
Fertilizer	0.50	0.50	\$3.00	6	\$1.13	\$26.04		\$30.17
40 hp tractor		0.50	\$0.00	3	\$2.50			\$2.50
Nematode Control			\$0.00		\$0.00	\$360.00		\$360.00
Sprayer	0.31	0.31	\$2.79	5	\$1.22			\$4.01
40 hp tractor		0.31	\$0.00	3	\$1.55			\$1.55
Trickle Irrigation	5.00	1.00	\$30.00	17	\$0.00	\$30.00		\$60.00
Paint trunks	1.00	1.00	\$6.00	1	\$9.57	\$15.00		\$30.57
Real Estate Tax							\$35.00	\$35.00
Management (hours)	3.00						\$27.00	\$27.00
Total	25.30	25.80	\$176.73		\$210.73	\$786.38	\$62.00	\$1,235.84

Table 9, Development Costs Including Interest

Year	Growing Costs	Interest	Annual Total	Accumulated Total
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Site preparation	\$326.00	\$96.00	\$422.00	\$422.00
Year 1	2,156.68	146.64	2,303.32	2,725.32
Year 2	997.10	423.04	1,420.14	4,145.45
Year 3	1,257.09	593.45	1,850.54	5,995.99
Year 4	1,264.04	815.52	2,079.56	8,075.55
Year 5	1,316.34	1,065.07	2,381.40	10,456.96
Year 6	1,355.90	1,350.83	2,706.74	13,163.69
Year 7	1,235.84	1,675.64	2,911.49	16,075.18
Accumulated Total	\$9,908.98	\$6,166.20	\$16,075.18	

Table 10. Potential Profit from
Yield and a Price of 238 Bushels/Acre Average Mature
\$20.00 Per Bushel

Year	Yield per acre (Bushel)	Gross Income	Annual growing cost	Harvest cost @ \$1.89 /Bushel	Interest on Investment 12.00%	Total Annual Cost	Annual Profit	Accumu- lated Profit
Site preparation			\$326.00		\$96.00	\$422.00	(\$422.00)	(\$422.00)
1	0.00	0.00	2,156.68	0.00	146.64	2,303.32	(2,303.32)	(2,725.32)
2	0.00	0.00	997.10	0.00	372.40	1,369.50	(1,369.50)	(4,094.81)
3	100.00	2000.00	1,257.09	189.00	260.34	1,517.43	482.57	(3,612.24)
4	200.00	4000.00	1,264.04	378.00	278.09	1,542.13	2,457.87	(1,154.37)
5	250.00	5000.00	1,316.34	472.50	281.06	1,597.39	3,402.61	2,248.24
6	250.00	5000.00	1,355.90	472.50	287.69	1,643.59	3,356.41	5,604.65
7	300.00	6000.00	1,235.84	567.00	293.23	1,529.07	4,470.93	10,075.58
8	350.00	7000.00	1,235.84	661.50	279.49	1,515.33	5,484.67	15,560.24
9	350.00	7000.00	1,235.84	661.50	277.84	1,513.68	5,486.32	21,046.56
10	300.00	6000.00	1,235.84	567.00	277.64	1,513.48	4,486.52	25,533.08
11	250.00	5000.00	1,235.84	472.50	277.62	1,513.46	3,486.54	29,019.62
12	250.00	5000.00	1,235.84	472.50	277.62	1,513.46	3,486.54	32,506.16
13	200.00	4000.00	1,235.84	378.00	277.61	1,513.46	2,486.54	34,992.70
14	100.00	2000.00	1,235.84	189.00	277.61	1,513.46	486.54	35,479.25
15	100.00	2000.00	1,235.84	189.00	277.61	1,513.46	486.54	35,965.79
Value of land after 15 years		\$800.00	19,795.72		4,238.49	24,034.21		

1,319.71

282.57

1,602.28

\$7.49

Table 11. Present Value of the Potential Profit from
Average mature Yield at a Price of
and a discount rate of

231 Bushels Per Acre
\$20.00 per Bushel, harvest rate of
\$1.89 / Bushel

12.00%

Year	Yield per acre	Gross Income	Annual growing cost	Harvest cost	Net Annual Profit	Discount Factor	Annual present value of profit	Accumulated present value of profit
Value of land			\$800.00		(\$800.00)			\$0.00
Site preparation			\$326.00		(\$326.00)			\$0.00
1	0	\$0.00	\$2,156.68	\$0.00	(\$2,156.68)	0.8929	(\$1,925.60)	(\$1,925.60)
2	0	\$0.00	\$997.10	\$0.00	(\$997.10)	0.7972	(\$794.88)	(\$2,720.49)
3	100	\$2,000.00	\$1,257.09	\$189.00	\$553.91	0.7118	\$394.27	(\$2,326.22)
4	200	\$4,000.00	\$1,264.04	\$378.00	\$2,357.96	0.6355	\$1,498.53	(\$827.69)
5	250	\$5,000.00	\$1,316.34	\$472.50	\$3,211.16	0.5674	\$1,822.10	\$994.41
6	250	\$5,000.00	\$1,355.90	\$472.50	\$3,171.60	0.5066	\$1,606.83	\$2,601.24
7	300	\$6,000.00	\$1,235.84	\$567.00	\$4,197.16	0.4523	\$1,898.58	\$4,499.82
8	350	\$7,000.00	\$1,235.84	\$661.50	\$5,102.66	0.4039	\$2,060.88	\$6,560.70
9	350	\$7,000.00	\$1,235.84	\$661.50	\$5,102.66	0.3606	\$1,840.07	\$8,400.76
10	300	\$6,000.00	\$1,235.84	\$567.00	\$4,197.16	0.3220	\$1,351.37	\$9,752.14
11	250	\$5,000.00	\$1,235.84	\$472.50	\$3,291.66	0.2875	\$946.27	\$10,698.41
12	250	\$5,000.00	\$1,235.84	\$472.50	\$3,291.66	0.2567	\$844.89	\$11,543.30
13	200	\$4,000.00	\$1,235.84	\$378.00	\$2,386.16	0.2292	\$546.85	\$12,090.14
14	100	\$2,000.00	\$1,235.84	\$189.00	\$575.16	0.2046	\$117.69	\$12,207.83
15	100	\$2,000.00	\$1,235.84	\$189.00	\$575.16	0.1827	\$105.08	\$12,312.91
Value of land after 15 years		\$800.00			\$800.00	0.1827	\$146.16	\$12,459.07

Table 12

Effect of varying yield on cost/bushel for peaches (fresh market)

(MED DENSIT 217)Trees/Acre

Average growing cost 15 years

\$1,373.05

Average interest cost 15 years

\$282.57

Growing
CostHarvest
CostInterest
CostTotal
Cost

Average Yield/Acre	per Bushel	per Bushel	per Bushel	per Bushel
100	\$13.73	\$1.89	\$2.83	\$18.45
150	\$9.15	\$1.89	\$1.88	\$12.93
200	\$6.87	\$1.89	\$1.41	\$10.17
250	\$5.49	\$1.89	\$1.13	\$8.51
350	\$3.92	\$1.89	\$0.81	\$6.62
400	\$3.43	\$1.89	\$0.71	\$6.03
450	\$3.05	\$1.89	\$0.63	\$5.57

Prepared by:

W. Conard "Bud" Search for Dr. James A. Flore, MSU, Professor, Dept. of Horticulture
03-Oct-94

Modified for Excel 3.0 by Mark Longstroth (1-Mar-1992)

ACCPRO	=\$I\$258:\$I\$278
ANPROF	=\$H\$258:\$H\$278
ANPV	=\$H\$291:\$H\$313
AVGRCST	=\$D\$318
AVINTCST	=\$D\$319
COSTTREE	=\$C\$11
COVERCST	=\$C\$13
CUSTPLAN	=\$G\$11
definitions	=\$A\$389:\$A\$390
DEVCST	=\$A\$234:\$C\$234
EQUIPMENT	=\$N\$6:\$N\$38

EQUIP_MISC	=\$X\$4
FERT01	=\$Q\$46
FERT02	=\$Q\$47
FERT03	=\$Q\$48
FERT04	=\$Q\$49
FERT05	=\$Q\$50
FERT06	=\$Q\$51
FERT07	=\$Q\$52
FERTCST	=\$G\$12
FUEL	=\$V\$3
HARCST	=\$G\$15
HERB01_AREA	=\$U\$62
HERB01_LABOR	=\$P\$67
HERB01_MAT	=\$S\$67
HERB02_AREA	=\$U\$89
HERB02_LABOR	=\$P\$94
HERB02_MAT	=\$S\$94
herb03_area	=\$U\$118
herb03_labor	=\$P\$123
HERB03_MAT	=\$S\$123
HERBNO_01	=\$O\$63
HERBNO_02	=\$O\$90
HERBNO_03	=\$O\$119
INTEREST_RATE	=\$G\$14
LANDVAL	=\$G\$8
MACROS	=\$A\$376
MANAGEMENT	=\$P\$42:\$W\$74
MOUSE	=\$R\$55
MOUSEGRD	=\$G\$13
mow	=\$V\$53
MOW01	=\$V\$46
MOW02	=\$V\$47
MOW03	=\$V\$48
MOW04	=\$V\$49
MOW05	=\$V\$50
MOW06	=\$V\$51
MOW07	=\$V\$52

Mowtime	=\$V\$45
NEMCST	=\$G\$10
NOSKILL	=\$C\$8
NOTREES	=\$E\$20
POSTCST	=\$C\$16
POTPROF	=\$A\$250
PRESVAL	=\$A\$282
PRICE	=\$G\$16
PRUN01	=\$S\$46
PRUN02	=\$S\$47
PRUN03	=\$S\$48
PRUN04	=\$S\$49
PRUN05	=\$S\$50
PRUN06	=\$S\$51
PRUN07	=\$S\$52
RE_TAX	=\$G\$9
ROW_LGTH	=\$P\$59
Row_width	=\$B\$20
SKILLED	=\$C\$9
Spac_tree	=\$C\$20
SPRAY01_LABOR	=\$P\$84
SPRAY01_MAT	=\$S\$84
SPRAY02_LABOR	=\$P\$111
SPRAY02_MAT	=\$S\$111
SPRAY03_LABOR	=\$P\$140
SPRAY03_MAT	=\$S\$140
SPRAYNO_01	=\$O\$83
SPRAYNO_02	=\$O\$110
SPRAYNO_03	=\$O\$139
SPRAY_MATURE	=\$O\$116:\$Z\$141
SPRAY_YOUNG	=\$O\$87:\$Z\$111
STANINC	=\$K\$291:\$K\$313
STRAW	=\$C\$12
TGRCST0	=\$I\$33
TGRCST01	=\$I\$77
TGRCST02	=\$I\$102
TGRCST03	=\$I\$128

TGRCST04	=\$I\$153
TGRCST05	=\$I\$178
TGRCST06	=\$I\$204
TGRCST07	=\$I\$231
TREETRIM	=\$C\$14
TREE_ACRE	=\$E\$20
TRELLCST	=\$C\$15
TRMORT01	=\$T\$46
TRMORT02	=\$T\$47
TRMORT03	=\$T\$48
TRMORT04	=\$T\$49
TRMORT05	=\$T\$50
TRMORT06	=\$T\$51
WILDLIFE	=\$C\$17
YIELD	=\$B\$259:\$B\$278
VA	=\$B\$377
VB	=\$B\$379:\$C\$379
VC	=\$B\$381:\$C\$381
VD	=\$B\$383:\$C\$383
VE	=\$B\$385:\$C\$385
VF	=\$B\$387:\$C\$387

Table 13. Equipment Cost

Item	Equip. code	Cost	Index cost	Years life	Annual depr.	Interest 12.0%	Gal. fuel /hr.
Pump Diesel	1	\$12,000	\$11,000	5	\$2,200	\$660	1.73
Airblast sprayer	4	\$20,000	\$18,000	10	\$1,800	\$1,080	1.44
Weed Sprayer	5	\$3,500	\$2,275	10	\$228	\$137	
3pt. fert. Spreader	6	\$1,150	\$874	7	\$125	\$52	
Rotary Mower	7	\$5,000	\$3,800	7	\$543	\$228	
Plow 3/16	8	\$1,400	\$770	15	\$51	\$46	
Disc	9	\$3,500	\$1,925	15	\$128	\$116	
Spring tooth harrow	10	\$1,600	\$880	15	\$59	\$53	
Tree planter	11	\$1,200	\$780	10	\$78	\$47	
Cultipacker	12	\$1,200	\$660	15	\$44	\$40	
Water tank	13	\$2,500	\$2,100	5	\$420	\$126	1.60
Dump truck	14	\$2,500	\$2,100	5	\$420	\$126	1.60
Flat bed truck	15	\$5,000	\$4,250	5	\$850	\$255	1.60
Drip Irrigation							
Low Density/A.	16	\$300	\$300	20	\$15	\$18	
Drip Irrigation							
High Density/A	17		\$450	20	\$23	\$27	

Orchard Management Tables

Table 14. Many costs are tied to the number of trees acre and change as t
Others are related to how many times an operation is preformed each year

	Fertilizer lb/tree	Pruning min/tree	Pruning hr/acre	Tree death	Mowing at # times?
Year 1	0.45			0.0	5.5%
Year 2	0.60		1	3.6	5.5%
Year 3	0.90		2	7.2	3.3%
Year 4	1.20		3	10.9	2.2%
Year 5	1.20		4	14.5	2.2%
Year 6	1.20		4	14.5	2.2%
Year 7+	1.20		5	18.1	
					Mower Speed is
Wildlife control is		\$0.15 tree			
Mouse control bait is		\$4.00 acre			

2170 Linear ft of tree row / acre.

Non-Bearing Orchard Spray Management

2 mph is the Herbicide Sprayer Speed

2 ft is the width of the herbicide swath and 0.10

2 Contact Herbicide sprays @ 8.0 pts / treated acre

Paraquat costing \$30 Gal.

One spray with Residual Herb. @ 2.5 lb./acre

Cost of Simizine \$3 lb.

0.62 hours of labor and \$20.23 of material

2 mph is the Airblast sprayer speed

20 ft is the row width

	Rate	Cost /lb.
--	------	-----------

1 Dormant spray containing Oil @	0.00 gal./A @	\$0.00
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Asana XL	8.00 oz/A	\$0.00
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Ferbam 76W	4.50 lb/acre	\$3.75
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1 Pre&Post Bloom Spray Bravo 720	4.00 pts./acre	\$0.00
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Asana XL	8.00 oz/A	\$0.00
----------	-----------	--------

1 Cover Sprays with Captan 50W	6.00 lbs./acre	\$2.30
--------------------------------	----------------	--------

	Guthion 35W	3.00 lbs/acre	\$4.40
1 Trunk Sprays	Lorsban 4E	3.00 qts/100gal	\$0.00
4 Total Sprays			
	1.23 hours of labor and	\$99.22 of material	

Young Bearing Orchard Spray Management

2 mph is the Herbicide Sprayer Speed

2 ft is the width of the herbicide swath and

0.10

1 Contact Herbicide sprays @	8.0 pts / treated acre
Paraquat costing	\$30 Gal.
One spray with Residual Herb. @	2.5 lb./acre
Cost of Simizine	\$3 lb.
0.31 hours of labor and	\$3.74 of material

2 mph is the Airblast sprayer speed

20 ft is the row width

Rate

Cost /lb.

1 Dormant spray		0.00 gal./A @	\$0.00
	Asana XL	8.00 oz/A	\$0.00
	Ferbam 76W	4.50 lb/acre	\$3.75
1 Pink Sprays	Fungicide @	0.00 lbs/acre	\$0.00
	Asana XL	8.00 oz/A	\$0.00
1 Bloom Sprays	Bravo 720	4.00 pts./acre	\$0.00
	Insecticide @	0.00 lbs/acre	\$0.00
1 Petal Fall Sprays	Bravo 720	4.00 pts./acre	\$0.00
	Guthion 35W	3.00 lbs/acre	\$4.40
1 Shuck-Split Sprays	Bravo 720	4.00 pts./acre	\$0.00
	Asana XL	8.00 oz/A	\$0.00
2 Cover Sprays	Captan 50W	6.00 lbs./acre	\$2.30

PEACHCON.XLS

	Guthion 35W	3.00 lbs/acre	\$4.40
1 Trunk Sprays	Lorsban 4E	3.00 qts/100gal	\$0.00
1 Cover Sprays	Captan 50W	6.00 lbs./acre	\$2.30
	Guthion 35W	3.00 lbs/acre	\$4.40
1 Pre-harvest Sprays	Rovral 50W	2.00 lbs./acre	\$20.50
	Guthion 35W	3.00 lbs/acre	\$4.40
0 Post-harvest Sprays	Fungicide	0.00 qts/100gal	\$0.00
	Insecticide @	0.00 lbs/acre	\$0.00
10 Total Sprays			
	3.08 hours of labor and	\$275.02	of material

Mature Bearing Orchard Spray Management

2 mph is the Herbicide Sprayer Speed

2 ft is the width of the herbicide swath and 0.10

1 Contact Herbicide sprays @ 8.0 pts / treated acre

Paraquat costing \$30 Gal.

One spray with Residual Herb. @ 2.5 lb./acre

Cost of Simizine \$3 lb.

0.31 hours of labor and \$3.74 of material

2 mph is the Airblast sprayer speed

20 ft is the row width

Rate

Material

Cost /lb.

1 Dormant spray

0.00 gal./A @

\$0.00

Asana XL

8.00 oz/A

\$0.00

Ferbam 76W

4.50 lb/acre

\$3.75

1 Pink Sprays

Fungicide @

0.00 lbs/acre

\$0.00

Asana XL

8.00 oz/A

\$0.00

PEACHCON.XLS

1 Bloom Sprays	Bravo 720	4.00 pts./acre	\$0.00
	Insecticide @	0.00 lbs/acre	\$0.00
1 Petal Fall Sprays	Bravo 720	4.00 pts./acre	\$0.00
	Guthion 35W	3.00 lbs/acre	\$4.40
1 Shuck-Split Sprays	Bravo 720	4.00 pts./acre	\$0.00
	Asana XL	8.00 oz/A	\$0.00
2 Cover Sprays	Captan 50W	6.00 lbs./acre	\$2.30
	Guthion 35W	3.00 lbs/acre	\$4.40
1 Trunk Sprays	Lorsban 4E	3.00 qts/100gal	\$0.00
1 Cover Sprays	Captan 50W	6.00 lbs./acre	\$2.30
	Guthion 35W	3.00 lbs/acre	\$4.40
1 Pre-harvest Sprays	Rovral 50W	2.00 lbs./acre	\$20.50
	Guthion 35W	3.00 lbs/acre	\$4.40
0 Post-harvest Sprays	Fungicide	0.00 qts/100gal	\$0.00
	Insecticide @	0.00 lbs/acre	\$0.00
10 Total Sprays			
	3.08 hours of labor and	\$275.02	of material

Fuel \$1.25 /gal.	Repair + main.	Other cost 1%	Total annual cost	Hours of use	Cost per hour	Rate used
\$1,083	\$720	\$120	\$4,783	500	\$9.57	\$9.57
\$720	\$840	\$200	\$4,640	400	\$11.60	\$11.60
	\$189	\$35	\$588	150	\$3.92	\$3.92
	\$151	\$12	\$340	150	\$2.27	\$2.27
	\$471	\$50	\$1,292	300	\$4.31	\$4.31
	\$17	\$14	\$129	30	\$4.28	\$4.28
\$0	\$98	\$35	\$377	75	\$5.02	\$5.02
\$0	\$45	\$16	\$172	75	\$2.30	\$2.30
\$0	\$15	\$12	\$152	40	\$3.80	\$3.80
\$0	\$6	\$12	\$102	15	\$6.77	\$6.77
\$400	\$200	\$25	\$1,171	200	\$5.86	\$5.86
\$300	\$150	\$25	\$1,021	150	\$6.81	\$6.81
\$800	\$350	\$50	\$2,305	400	\$5.76	\$5.76
	\$18	\$22	\$73	1	\$73.00	\$73.00
	\$27	\$66	\$143	1	\$142.50	\$142.50

he orchard ages

takes hr.	Mouse
0.21	Bait/A
0.21	
0.41	
0.41	
0.41	
0.41	
0.41	
0.41	
0.41	
3 mph	

is the treated acrege

	Cost / gal.		Cost/Acre
Gal.	\$0.00	Gal.	\$0
lb.	\$1.00	Oz.	\$8
lb.	\$0.00	Gal.	\$17
lb.	\$5.80	Pt.	\$23
lb.	\$1.00	Oz.	\$8
lb.	\$0.00	Pt.	\$14

lb.	\$0.00	Gal.	\$13
lb.	\$5.38	Qt.	\$16

is the treated acrege

	Cost / gal.		Cost/Acre
Gal.	\$0.00	Gal.	\$0
lb.	\$1.00	Oz.	\$8
lb.	\$0.00	Gal.	\$17
			\$0
lb.	\$0.00	Gal.	\$0
lb.	\$1.00	Oz.	\$8
			\$0
lb.	\$5.80	Pt.	\$23
lb.	\$0.00	Gal.	\$0
			\$0
lb.	\$5.80	Pt.	\$23
lb.	\$0.00	Gal.	\$13
			\$0
lb.	\$5.80	Pt.	\$23
lb.	\$1.00	Oz.	\$8
			\$0
lb.	\$0.00	Pt.	\$28

lb.	\$0.00	Gal.	\$26
lb.	\$5.38	Qt.	\$16
lb.	\$0.00	Pt.	\$14
lb.	\$0.00	Gal.	\$13
lb.	\$0.00	Pt.	\$41
lb.	\$0.00	Gal.	\$13
			\$0
lb.	\$0.00	Gal.	\$0
lb.	\$0.00	Gal.	\$0

is the treated acrege

	Material Cost / gal.		Total Cost/Acre
Gal.	\$0.00	Gal.	\$0
lb.	\$1.00	Oz.	\$8
lb.	\$0.00	Gal.	\$17
			\$0
lb.	\$0.00	Gal.	\$0
lb.	\$1.00	Oz.	\$8
			\$0

lb.	\$5.80	Pt.	\$23
lb.	\$0.00	Gal.	\$0
			\$0
lb.	\$5.80	Pt.	\$23
lb.	\$0.00	Gal.	\$13
			\$0
lb.	\$5.80	Pt.	\$23
lb.	\$1.00	Oz.	\$8
lb.	\$0.00	Pt.	\$28
lb.	\$0.00	Gal.	\$26
lb.	\$5.38	Qt.	\$16
lb.	\$0.00	Pt.	\$14
lb.	\$0.00	Gal.	\$13
lb.	\$0.00	Pt.	\$41
lb.	\$0.00	Gal.	\$13
			\$0
lb.	\$0.00	Gal.	\$0
lb.	\$0.00	Gal.	\$0