

Orchard Establishment Budget for Peaches and Nectarines in Florida¹

Mercy Olmstead and Kim Morgan²

Overview

Stone fruit production in Florida, specifically peaches (*Prunus persica* L.), has increased in acreage since the mid-2000s, predominantly driven by the desire to diversify agricultural operations. Although the National Agriculture Statistics Service does not keep annual production and acreage statistics for peaches because of the industry's small size, a recent poll revealed just over 670 acres in Florida, with about 700 unreported acres (Table 1) (Morgan and Olmstead 2013). Statewide, current estimates of harvested peaches are approximately 4.5 million pounds, with a value of more than \$6 million. Florida growers can take advantage of an early market window in which they produce the first domestic peach of the calendar year, commanding a high price per pound. The future of peach production in the state is very positive, and many growers continue to plant new orchards.

Production Practices

Peaches are predominantly planted in an open-vase system, and a common group of varieties are used in commercial orchards planted in Central and South Central Florida. These include 'UFSun', 'UFBest', 'TropicBeauty', 'UFBeauty', and 'UFOne'. In addition, a new variety, 'UFGem', is showing excellent promise in trials and will be released in 2014. Several other varieties are grown in North and North Central Florida for U-pick operations and farm stand sales. See *Florida Peach and Nectarine Varieties* (<http://edis.ifas>

[ufl.edu/mg374](http://edis.ifas.ufl.edu/mg374)) for more information. Plant spacing and density vary widely (Table 2) and may be determined by the previous infrastructure of a former crop. These tree densities affect the total cost per acre because practices like pruning, fruit thinning, and harvest are dependent upon hand labor. Pruning is conducted twice a year—once during the summer and once during the winter months—once thin fruiting wood and maintain tree shape. Once the fruit set, fruit must be thinned to 6–9 inches apart to achieve marketable fruit size. Peach and nectarine bloom is not uniform in timing, and two or three passes must be made to adequately achieve the ideal crop load. Similarly, peach fruit are not harvested entirely at one time, and many orchards must be picked over three or four times, 3–7 days apart. Spray program options for various insects, weeds, and diseases are available in an annually updated publication available online (<http://www.ent.uga.edu/peach/PeachGuide.pdf>).

Enterprise Planning Budgets

To assist Florida peach growers with the decision-making process, planning budgets for years 1–4 were developed (Tables 3–6) with input from UF/IFAS specialists, industry experts, and select Central and South Florida peach orchard managers. These planning budgets detail per-acre peach orchard variable, fixed, and total costs, and are intended to serve as benchmark figures that could be incurred by managers of the peach varieties described above. Production input prices are based on 2013 cost lists provided

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by manufacturers and current peach orchard managers. Estimated returns per acre are based on reported average farm gate values received by Florida peach growers during the market window of late April through early June. Marketing costs and marketable fruit percentages may vary widely across operations depending on variety, harvest conditions, marketing channels, and packing shed options. A summary table (Table 3; Figure 1) is provided to highlight variable, fixed, and total costs per acre; total costs per pound; and expected returns above variable and total costs on a per-acre basis for each of years 1–4.

The planning budget for year 1 (Table 4) includes orchard establishment purchase of 145 trees/acre, (planted 15' between trees x 20' between rows) at an estimated \$12 per tree for the Florida varieties, and planting costs of \$76/acre. Year 1 variable and fixed costs are \$4,697 and \$723 per acre, respectively. While the trees will produce fruit, marketable yield is assumed to be zero pounds, resulting in estimated year 1 returns above total costs equal to a loss of -\$5,420 per acre.

Year 2 variable costs are estimated at \$3,845 per acre and include tree replacement and replanting costs of 5% per acre (Table 5). Estimated fixed costs for year 2 are \$831.75 per acre and include a management charge equivalent to 5% of gross receipts. Estimated year 2 average yield is 1,740 pounds per acre with a 75% estimated market yield, and farm gate value is assumed to be \$1.25 per pound of marketable fruit. For year 2, total costs per acre are \$4,677, netting an estimated cost of \$2.69 per market pound of peach. Year 2 returns above variable and total costs are loss estimates of -\$1,670 and -\$2,502 per acre, respectively.

Year 3 estimated yields are expected to reach 5,800 pounds and return revenues of \$7,250 per acre of market-quality fruit (Table 6). As in year 2, estimated variable costs associated with a 5% tree replacement and replanting, a 75% marketable yield, and farm gate value of \$1.25 per acre are included in both years 3 and 4. For year 3, estimated variable and fixed costs per acre are \$4,541 and \$1,086, respectively. Total year 3 costs are \$5,627 per acre, with an estimated cost of \$0.97 per market pound of peach. Year 3 estimated returns above variable and total costs are gains of \$2,709 and \$1,624 per acre, respectively.

By year 4, Florida peach varieties are expected to reach full production capacity, estimated at 8,700 pounds per acre, or 60 pounds per tree (Table 7). Currently, peach breeders expect Florida varieties to maintain full production yields throughout years 4–10 if properly maintained and under normal environmental conditions. Year 4 revenues are

expected to reach \$10,875 per acre of marketable peaches, with a total per-acre cost of \$0.72 per pound. As in years 2 and 3, management charges of 5% of gross receipts are included in year 4, generating additional fixed costs of \$543.75 per acre. For year 4, estimated variable and fixed costs per acre are \$5,031 and \$1,267, respectively, summing to an estimated total cost of \$6,298 per acre. Year 4 estimated returns above variable and fixed costs are gains of \$5,844 and \$4,577 per acre, respectively.

Because reported farm gate values vary greatly depending primarily on harvest date as well as market channel, a sensitivity analysis is provided (Table 8; Figure 2). In Table 8, returns above total costs per acre are provided across a matrix of seven feasible farm gate value and five commercial marketable yield scenarios. Using the year 4 costs and returns estimates as an example, at farm gate values equal to \$1.25 per pound of peaches, estimated marketable commercial yield for year 4 is 6,525 pounds per acre, which generates returns to total costs of \$1,859 per acre.

Additional Resources

An interactive Excel spreadsheet for each of the four production years is available free online at <http://hos.ufl.edu/sites/default/files/faculty/maolmstead/documents/PeachBudgetWorksheets24Jun13.xlsx>. This interactive budget allows individual orchard managers to calculate final revenue estimates by adjusting the values of production and market yields, average farm gate price, input application rate and cost, and fixed investment costs, such as irrigation, facilities, equipment, and returns, to match their real-time operational conditions. All changes made in year 4 of the planning budget generate updated “what-if” and summary tables in the associated tabs, which provide the orchard manager with real-time comparisons resulting from any changes to estimated yields, revenues, or input costs.

For further information about stone fruit production in Florida, please refer to *Training and Pruning Florida Peaches, Nectarines, and Plums* (<http://edis.ifas.ufl.edu/hs365>) and *Alternative Opportunities for Small Farms: Peach and Nectarine Production Review* (<http://edis.ifas.ufl.edu/ac018>), or contact your local UF/IFAS Extension specialists.

References

Morgan, K., and M. Olmstead. 2013. "A Diversification Strategy for Perennial Horticulture in Florida." *HortTechnology* (forthcoming).

USDA (U.S. Department of Agriculture). 2007. "Specified Fruits and Nuts by Acres: 2007 and 2002." Census of Agriculture. Accessed April 30 2013. http://www.agcensus.usda.gov/Publications/2007/Full_Report/Volume_1,_Chapter_1_State_Level/Florida/st12_1_035_036.pdf.

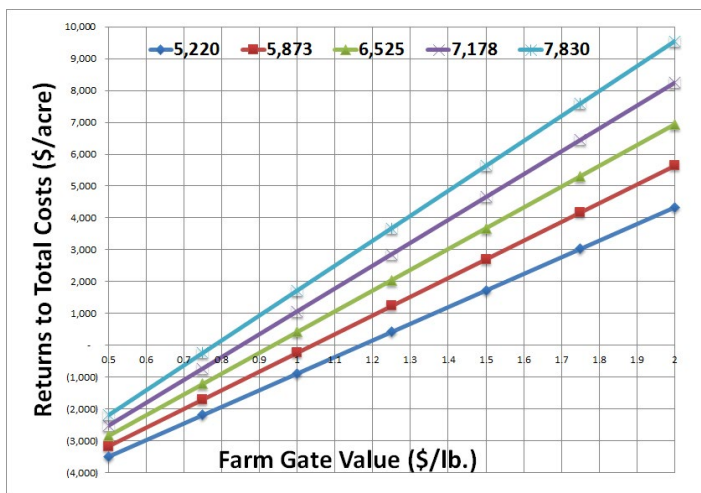


Figure 1. Florida peach returns to total costs (\$/acre) under varying farm gate values and marketable yield scenarios (Source: Morgan and Olmstead 2013)

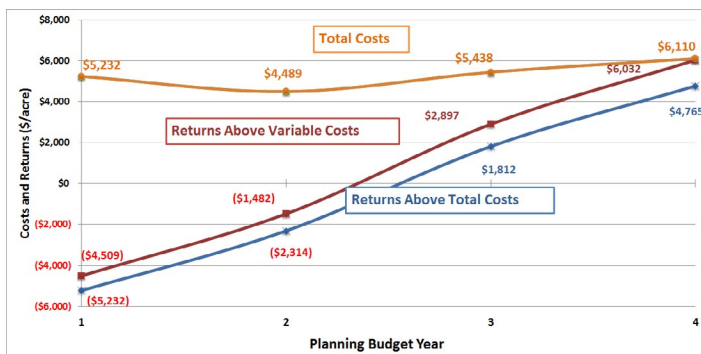


Figure 2. Florida peach planning budget summary: Years 1-4 estimated returns and cost (\$/acre) above variable, fixed, and total costs (Source: Morgan and Olmstead 2013)

Table 1. Comparison of orchard acreage and farm number between 2007 and 2011

2011 Florida Peach Grower Survey		2007 Florida USDA-NASS Agricultural Census		Change in acreage
No. of farms	No. of acres	No. of farms	No. of acres	%
24	630	145	234	+169%

(Source: Morgan and Olmstead 2013; USDA 2007)

Table 2. Various tree densities per acre for Florida orchards

Spacing between trees	Spacing between rows	Total trees/acre
15	25	117
15	20	145
10	20	218
10	15	290

Table 3. Florida peach planning budget summary: Years 1–4 estimated costs and returns

Year	Variable costs (VC)	Fixed costs (FC)	Total costs (TC)	Total costs (TC)	Returns above VC	Returns above TC
	Per acre	Per acre	Per acre	Per lb.	Per acre	Per acre
	\$/acre	\$/acre	\$/acre	\$/lb.	\$/acre	\$/acre
Year one	\$4,509	\$723	\$5,232		-\$4,509	-\$5,232
Year two	\$3,657	\$832	\$4,489	\$2.58	-\$1,482	-\$2,314
Year three	\$4,353	\$1,086	\$5,438	\$0.94	\$2,897	\$1,812
Year four	\$4,843	\$1,267	\$6,110	\$0.70	\$6,032	\$4,765

Table 4. Florida peach planning budget, year 1 establishment estimated costs and returns (145 trees/acre)

Items	Application(s)	Unit	Quantity	Price	\$/unit	Amount
REVENUE						
		Peaches	0	\$1.25	per lb	\$0.00
		% packout	0.75			
VARIABLE COSTS						
Lime (dolomite)	1	ton/acre	1.5	\$28.00	per ton	\$42.00
Fertilizer						
	1	lb/acre	30	\$0.21	per lb	\$6.42
Herbicides						
	1	pt/acre	2.2	\$2.69	per pt	\$5.91
	4	qt/acre	1	\$14.50	per gal	\$58.00
	1	oz/acre	9	\$5.13	per oz	\$46.13
Insecticides						
	2	gal/acre	3	\$6.50	per gal	\$39.00
	1	pt/acre	4.5	\$4.38	per pt	\$19.69
	1	lb/acre	3	\$10.60	per lb	\$31.80
	1	oz/acre	12	\$0.43	per oz	\$5.16
	1	oz/acre	2	\$1.17	per oz	\$2.34
	1	oz/acre	6	\$0.70	per oz	\$4.17
	1	lb/acre	2.5	\$5.00	per lb	\$12.50
	1.5	oz/acre	0.075	\$550.00	per lb	\$61.88
	1	oz/acre	6	\$5.04	per oz	\$30.23
Fungicides						
	1	gal/acre	9	\$17.00	per gal	\$153.00
	0	lb/acre	18	\$4.49	per lb	\$0.00
	0	pt/acre	8	\$3.44	per pt	\$0.00
	0	oz/acre	14.5	\$2.75	per oz	\$0.00
	0	oz/acre	8	\$3.27	per oz	\$0.00
	3	oz/acre	10	\$1.79	per oz	\$53.67
	2	lb/acre	3	\$5.80	per lb	\$34.80
	1	lb/acre	2.5	\$3.52	per lb	\$8.80
	5	lb/acre	10.5	\$1.05	per lb	\$55.13
Trees	1	trees/acre	145	\$12.00	per tree	\$1,740.00
Irrigation, microsprinklers			1	\$30.00	per acre	\$30.00

¹Interest on all variable costs for 12 months at 8% interest rate.

²Hired and seasonal labor is considered a variable cost; salaried and operator/unpaid family labor are considered a fixed cost.

³Machine and equipment charge set at 2% of total investment of \$30,000 shared across total number of acres (20).

⁴Capital recovery charge of \$308 included to represent annual ownership costs of these items over 7-year period, where microsprinkler system valued at \$1,500 per acre expensed at 10% annually for 7 years.

⁵Facilities and equipment valued at \$30,000 expensed at 15% annually for 20 acres. Includes depreciation, interest, insurance, and repairs. Ex: $(\$30,000 \times 0.15) / 20 \text{ acres} = \225

Table 5. Florida peach planning budget, year 2 estimated costs and returns (145 trees/acre)

Items		Application(s)	Unit	Quantity	Price	\$/unit	Amount
REVENUE							
	Peaches		lb/acre	1740	\$1.25	per lb	\$2,175.00
			% packout	0.75			
VARIABLE COSTS							
Lime (dolomite)		1	ton/acre	1.5	\$28.00	per ton	\$42.00
Fertilizer							
	Fert 12-4-8 or 10-10-10	1	lb/acre	60	\$0.21	per lb	\$12.84
Herbicides							
	Glyphosate (Roundup®)	4	qt/acre	1	\$14.50	per gal	\$58.00
	Gramoxone Inteon®	1	pt/acre	2.2	\$2.69	per pt	\$5.91
	Chateau® WDG	1	oz/acre	9	\$5.13	per oz	\$46.13
Insecticides							
	Dormant Oil	2	gal/acre	3	\$6.50	per gal	\$39.00
	Lorsban® 4E	1	pt/acre	4.5	\$4.38	per pt	\$19.69
	Imidan® 70 WSB	1	lb/acre	3	\$10.60	per lb	\$31.80
	Asana® XL	1	oz/acre	12	\$0.43	per oz	\$5.16
	Baythroid® XL	1	oz/acre	2	\$1.17	per oz	\$2.34
	Provado®	1	oz/acre	6	\$0.70	per oz	\$4.17
	Sevin®	1	lb/acre	2.5	\$5.00	per lb	\$12.50
	Success® or Entrust®	1.5	oz/acre	0.075	\$550.00	per lb	\$61.88
	SpinTor®	1	oz/acre	6	\$5.04	per oz	\$30.23
Fungicides							
	Telone® II	1	gal/acre	9	\$17.00	per gall	\$153.00
	Captan 80WDG	0	lb/acre	18	\$4.49	per lb	\$0.00
	Bravo Weather Stik®	0	pt/acre	8	\$3.44	per pt	\$0.00
	Pristine®	0	oz/acre	14.5	\$2.75	per oz	\$0.00
	Elite® 50WP	0	oz/acre	8	\$3.27	per oz	\$0.00
	Abound®	3	oz/acre	10	\$1.79	per oz	\$53.67
	Kocide® 3000	2	lb/acre	3	\$5.80	per lb	\$34.80
	Cuprofix®	1	lb/acre	2.5	\$3.52	per lb	\$8.80
	Sulfur	5	lb/acre	10.5	\$1.05	per lb	\$55.13
Trees		1	trees/acre	7.25	\$12.00	per tree	\$87.00
Irrigation, drip				1	\$30.00	per acre	\$30.00
Fuel, oil, grease				1	\$25.00	per acre	\$25.00
Repairs				1	\$50.00	per acre	\$50.00
Miscellaneous (soil test, hand tools, etc.)		1			\$50.00	per acre	\$50.00
Bee rental & maintenance		1			\$0.00	per acre	\$0.00
Hired labor							
	Planting	1	hours/acre	1	\$9.50	per hour	\$9.50
	Harrowing	4	trip/acre	1	\$12.00	per trip	\$48.00
	Mowing	5	trip/acre	1	\$12.00	per trip	\$60.00
	Chemical applications	10	trip/acre	1	\$12.00	per trip	\$120.00

	Harvesting	1740	lb/acre	1	\$0.05	\$/lb	\$87.00
	Thinning	1	#/tree	145	\$4.50	per tree	\$652.50
	Pruning	2	#/tree	145	\$4.50	per tree	\$1,305.00
Marketing costs							
	Custom packing (fludioxinil/wax/cooling)	1740	lb/acre	1305	\$0.09	per lb	\$117.45
	Brokerage	1740	lb/acre	1305	\$0.03	per lb	\$41.76
	Packing operation costs	1740	lb/acre	1305	\$0.02	per lb	\$26.10
	Interest on operating capital ¹		12 months	3,560	\$0.08		\$270.91
TOTAL VARIABLE COSTS						per acre	\$3,657.26
FIXED COSTS							
Operator labor charge ²		1	hours/acre	10	\$7.50	per hour	\$75.00
Machine & equipment charge ³		20	acres	30000	\$0.02	per acre	\$30.00
Irrigation charge ⁴				1	\$308.00	per acre	\$308.00
Land charge		1	rent/acre	1	\$85.00	per acre	\$85.00
Management charge		5% gross receipts		2175	\$0.05		\$108.75
Facilities & equipment ⁵		20	acres	30000	\$0.15	per acre	\$225.00
TOTAL FIXED COSTS						per acre	\$831.75
TOTAL COSTS (PER ACRE)						per acre	\$4,489.01
TOTAL COSTS (PER POUND)						per lb	\$2.58
RETURN ABOVE VARIABLE COSTS						per acre	-\$1,482.26
RETURN ABOVE TOTAL COSTS						per acre	-\$2,314.01
¹ Interest on all variable costs for 12 months at 8% interest rate. ³ Machine and equipment charge set at of 2% of total investment of \$30,000 shared across total number of acres (20). ⁴ Capital recovery charge of \$308 included to represent annual ownership costs of these items over 7-year period, where microsprinkler system valued at \$1,500 per acre expensed at 10% annually for 7 years. ⁵ Facilities and equipment valued at \$30,000 expensed at 15% annually for 20 acres. Includes depreciation, interest, insurance, and repairs. Ex: $(\$30,000 \times 0.15)/20 \text{ acres} = \225							

Table 6. Florida peach planning budget, year 3 estimated costs and returns (145 trees/acre)

Items	Application(s)	Unit	Quantity	Price	\$/unit	Amount
REVENUE						
	Peaches	lb/acre	5800	\$1.25	per lb	\$7,250.00
		% packout	0.75			
VARIABLE COSTS						
Lime (dolomite)	1	ton/acre	1.5	\$28.00	per ton	\$42.00
Fertilizer						
	Fert 12-4-8 or 10-10-10	lb/acre	100	\$0.21	per lb	\$21.40
	Herbicides					
	Gramoxone Inteon®	pt/acre	2.2	\$2.69	per pt	\$5.91
	Glyphosate (Roundup®)	qt/acre	1	\$14.50	per gal	\$58.00
	Chateau® WDG	oz/acre	9	\$5.13	per oz	\$46.13
	Insecticides					
	Dormant Oil	gal/acre	3	\$6.50	per gal	\$39.00
	Lorsban® 4E	pt/acre	4.5	\$4.38	per pt	\$19.69
	Imidan® 70 WSB	lb/acre	3	\$10.60	per lb	\$31.80
	Asana® XL	oz/acre	12	\$0.43	per oz	\$5.16
	Baythroid® XL	oz/acre	2	\$1.17	per oz	\$2.34
	Provado®	oz/acre	6	\$0.70	per oz	\$4.17
	Sevin®	lb/acre	2.5	\$5.00	per lb	\$12.50
	Success® or Entrust®	oz/acre	0.075	\$550.00	per lb	\$61.88
	SpinTor®	oz/acre	6	\$5.04	per oz	\$30.23
Fungicides						
	Telone® II	gal/acre	9	\$17.00	per gall	\$153.00
	Captan 80WDG	lb/acre	18	\$4.49	per lb	\$0.00
	Bravo Weather Stik®	pt/acre	8	\$3.44	per pt	\$0.00
	Pristine®	oz/acre	14.5	\$2.75	per oz	\$0.00
	Elite® 50WP	oz/acre	8	\$3.27	per oz	\$0.00
	Abound®	oz/acre	10	\$1.79	per oz	\$53.67
	Kocide® 3000	lb/acre	3	\$5.80	per lb	\$34.80
	Cuprofix®	lb/acre	2.5	\$3.52	per lb	\$8.80
	Sulfur	lb/acre	10.5	\$1.05	per lb	\$55.13
Trees	1	trees/acre	7.25	\$12.00	per tree	\$87.00
Irrigation, drip			1	\$30.00	per acre	\$30.00
Fuel, oil, grease			1	\$25.00	per acre	\$25.00
Repairs			1	\$50.00	per acre	\$50.00
Miscellaneous (soil test, hand tools, etc.)	1			\$50.00	per acre	\$50.00
Bee rental & maintenance	1			\$0.00	per acre	\$0.00
Hired labor						
	Planting	hours/acre	1	\$9.50	per hour	\$9.50
	Harrowing	trip/acre	1	\$12.00	per trip	\$48.00
	Mowing	trip/acre	1	\$12.00	per trip	\$60.00
	Chemical applications	trip/acre	1	\$12.00	per trip	\$120.00

	Harvesting	5800	lb/acre	1	\$0.05	\$/lb	\$290.00	
	Thinning	1	trees/acre	145	\$4.50	per tree	\$652.50	
	Pruning	2	#/tree	145	\$4.50	per tree	\$1,305.00	
Marketing costs								
	Custom packing (fludioxinil/ wax/cooling)	5800	lb/acre	4350	\$0.09	per lb	\$391.50	
	Brokerage	5800	lb/acre	4350	\$0.03	per lb	\$139.20	
	Packing operation costs	5800	lb/acre	4350	\$0.02	per lb	\$87.00	
	Interest on operating capital ¹		12 months	4,204	\$0.08		\$332.42	
TOTAL VARIABLE COSTS							per acre	\$4,352.72
FIXED COSTS								
Operator labor charge ²		1	hours/acre	10	\$7.50	per hour	\$75.00	
Machine & equipment charge ³		20	acres	30000	\$0.02	per acre	\$30.00	
Irrigation charge ⁴				1	\$308.00	per acre	\$308.00	
Land charge		1	rent/acre	1	\$85.00	per acre	\$85.00	
Management charge		5% gross receipts		7250	\$0.05		\$362.50	
Facilities & equipment ⁵		20	acres	30000	\$0.15	per acre	\$225.00	
TOTAL FIXED COSTS							per acre	\$1,085.50
TOTAL COSTS (PER ACRE)							per acre	\$5,438.22
TOTAL COSTS (PER POUND)							per lb	\$0.97
RETURN ABOVE VARIABLE COSTS							per acre	\$2,897.28
RETURN ABOVE TOTAL COSTS							per acre	\$1,811.78
¹ Interest on all variable costs for 12 months at 8% interest rate.								
³ Machine and equipment charge set at of 2% of total investment of \$30,000 shared across total number of acres (20).								
⁴ Capital recovery charge of \$308 included to represent annual ownership costs of these items over 7-year period, where microsprinkler system valued at \$1,500 per acre expensed at 10% annually for 7 years.								
⁵ Facilities and equipment valued at \$30,000 expensed at 15% annually for 20 acres. Includes depreciation, interest, insurance, and repairs. Ex: $(\$30,000 \times 0.15)/20 \text{ acres} = \22								

Table 7. Florida peach planning budget, year 4 estimated costs and returns (145 trees/acre)

Items	Application(s)	Unit	Quantity	Price	\$/unit	Amount
REVENUE						
	Peaches	lb/acre	8700	\$1.25	per lb	\$10,875.00
		% packout	0.75			
VARIABLE COSTS						
Lime (dolomite)	1	ton/acre	1.5	\$28.00	per ton	\$42.00
Fertilizer						
	Fert 12-4-8 or 10-10-10	lb/acre	100	\$0.21	per lb	\$21.40
	Herbicides					
	Gramoxone Inteon®	pt/acre	2.2	\$2.69	per pt	\$5.91
	Glyphosate (Roundup®)	qt/acre	1	\$14.50	per gal	\$58.00
	Chateau® WDG	oz/acre	9	\$5.13	per oz	\$46.13
	Insecticides					
	Dormant Oil	gal/acre	3	\$6.50	per gal	\$39.00
	Lorsban® 4E	pt/acre	4.5	\$4.38	per pt	\$19.69
	Imidan 70 WSB	lb/acre	3	\$10.60	per lb	\$31.80
	Asana® XL	oz/acre	12	\$0.43	per oz	\$5.16
	Baythroid® XL	oz/acre	2	\$1.17	per oz	\$2.34
	Provado®	oz/acre	6	\$0.70	per oz	\$4.17
	Sevin®	lb/acre	2.5	\$5.00	per lb	\$12.50
	Success® or Entrust®	oz/acre	0.075	\$550.00	per lb	\$61.88
	SpinTor®	oz/acre	6	\$5.04	per oz	\$30.23
Fungicides						
	Telone® II	gal/acre	9	\$17.00	per gall	\$153.00
	Captan 80WDG	lb/acre	18	\$4.49	per lb	\$0.00
	Bravo Weather Stik®	pt/acre	8	\$3.44	per pt	\$0.00
	Pristine®	oz/acre	14.5	\$2.75	per oz	\$0.00
	Elite® 50WP	oz/acre	8	\$3.27	per oz	\$0.00
	Abound®	oz/acre	10	\$1.79	per oz	\$53.67
	Kocide® 3000	lb/acre	3	\$5.80	per lb	\$34.80
	Cuprofix®	lb/acre	2.5	\$3.52	per lb	\$8.80
	Sulfur	lb/acre	10.5	\$1.05	per lb	\$55.13
Trees	1	trees/acre	7.25	\$12.00	per tree	\$87.00
Irrigation, drip			1	\$30.00	per acre	\$30.00

Fuel, oil, grease					1	\$25.00	per acre	\$25.00
Repairs					1	\$50.00	per acre	\$50.00
Miscellaneous (soil test, hand tools, etc.)		1				\$50.00	per acre	\$50.00
Bee rental & maintenance		1				\$0.00	per acre	\$0.00
Hired labor								
	Planting	1		hours/acre	1	\$9.50	per hour	\$9.50
	Harrowing	4		trip/acre	1	\$12.00	per trip	\$48.00
	Mowing	5		trip/acre	1	\$12.00	per trip	\$60.00
	Chemical applications	10		trip/acre	1	\$12.00	per trip	\$120.00
	Harvesting	8700		lb/acre	1	\$0.05	\$/lb	\$435.00
	Thinning	1		trees/acre	145	\$4.50	per tree	\$652.50
	Pruning	2		#/tree	145	\$4.50	per tree	\$1,305.00
Marketing costs								
	Custom packing (fluidoxinil/wax/cooling)	8700		lb/acre	6525	\$0.09	per lb	\$587.25
	Brokerage	8700		lb/acre	6525	\$0.03	per lb	\$208.80
	Packing operation costs	8700		lb/acre	6525	\$0.02	per lb	\$130.50
	Interest on operating capital ¹			12 months	4,658	\$0.08		\$358.73
TOTAL VARIABLE COSTS								\$4,842.88
FIXED COSTS								
Operator labor charge ²		1		hours/acre	10	\$7.50	per hour	\$75.00
Machine & equipment charge ³		20		acres	30000	\$0.02	per acre	\$30.00
Irrigation charge ⁴					1	\$308.00	per acre	\$308.00
Land charge		1		rent/acre	1	\$85.00	per acre	\$85.00
Management charge		5% gross receipts			10875	\$0.05		\$543.75
Facilities & equipment ⁵		20		acres	30000	\$0.15	per acre	\$225.00
TOTAL FIXED COSTS								\$1,266.75
TOTAL COSTS (PER ACRE)								\$6,109.63
TOTAL COSTS (PER POUND)								\$0.70
RETURN ABOVE VARIABLE COSTS								\$6,032.12
RETURN ABOVE TOTAL COSTS								\$4,765.37

¹Interest on all variable costs for 12 months at 8% interest rate.

²Hired and seasonal labor is considered a variable cost; salaried and operator/unpaid family labor are considered a fixed cost.

³Machine and equipment charge set at of 2% of total investment of \$30,000 shared across total number of acres (20).

⁴Capital recovery charge of \$308 included to represent annual ownership costs of these items over 7-year period, where microsprinkler system valued at \$1,500 per acre expensed at 10% annually for 7 years.

⁵Facilities and equipment valued at \$30,000 expensed at 15% annually for 20 acres. Includes depreciation, interest, insurance, and repairs. Ex: $(\$30,000 \times 0.15) / 20 \text{ acres} = \225

Table 8. Florida peach sensitivity analysis: Returns to total costs (\$/acre) under varying farm gate values and marketable yield scenarios

Farm gate value (\$/lb)	Total marketable commercial yield (lb)				
	5,220	5,873	6,525	7,178	7,830
\$0.50	(\$3,500)	(\$3,173)	(\$2,847)	(\$2,521)	(\$2,195)
\$0.75	(\$2,195)	(\$1,705)	(\$1,216)	(\$727)	(\$237)
\$1.00	(\$890)	(\$237)	\$415	\$1,068	\$1,720
\$1.25	\$415	\$1,231	\$2,047	\$2,862	\$3,678
\$1.50	\$1,720	\$2,699	\$3,678	\$4,657	\$5,635
\$1.75	\$3,025	\$4,167	\$5,309	\$6,451	\$7,593
\$2.00	\$4,330	\$5,635	\$6,940	\$8,245	\$9,550