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Production Costs and Commodity Budgets for Selected Florida Vegetables¹

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Introduction

The estimated cost of production (budgets) for twelve vegetable crops produced in one or more of seven producing areas in Florida for the 1997-98 through 2001-2003 seasons are available on the Internet via the Department of Food and Resource Economics website, specifically the Commodity Budgets link. In all, twenty-four crop-area combinations are included. Historical cost-of-production data not yet posted to the Internet are also available upon request.

The vegetable budgets presented in these reports are intended to reflect production practices that are considered typical for any given crop in a given area. A consensus of opinion among UF/IFAS personnel and various producers in each production area define *typical* production practices for each crop. Cost estimates resulting from this process should not be considered as representing the average cost of production in a statistical sense, nor should they be considered as necessarily relating to recommended production practices. The intent of these cost budgets is to establish a benchmark within the range of actual costs that could be expected to produce the crop.

Eight budgets reflect double-crop production practices. Double-crop production refers to the practice of planting a *following* crop directly into the plastic mulch-covered beds used to produce an initial crop, thus utilizing any residual inputs and land preparation from the preceding crop. Most commonly, cucumbers or watermelons follow tomatoes or peppers, but other combinations may occur. The combination of crops produced is generally determined by grower preference. This system of farming is practiced in an effort to recover costs incurred in the production of the initial crop and to reduce production costs of the second (following) crop. Actual production practices for the initial crop, either tomatoes or peppers, are affected very little when double cropping is practiced. However, production of the subsequent crop can, in some cases, be affected significantly relative to growing the crop independently.

The current vegetable cost budgets available are:

- Bush Beans
- Cabbage

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- Sweet Corn
- Cucumbers
- Eggplant
- Green Peppers
- Chip Potatoes
- Table Potatoes
- Summer Squash
- Strawberries
- Tomatoes
- Watermelons

Methodology

The budgets were constructed using a computerized budget generator program (AGSYS). Technical coefficients, such as fertilizer, fumigants, fungicides, insecticides, surfactants, labor, contracted services, machinery use, and miscellaneous other materials used in constructing the budgets, were obtained by consultation with, and review by, individual growers, county Extension faculty, and UF/IFAS researchers. The input prices used in conjunction with the technical coefficients are obtained by survey and correspondence with farm suppliers and growers in each of the areas in which production costs are reported. These items are entered into an interactive database from which budget line items are extracted to create individual production activities.

Cost Data

Two tables are reported for each crop. Examples are provided for strawberries grown in the Plant City area of Florida (Tables 1 and 2). Table 1 provides a summary detailing estimated cost of production per acre, by type of input, as described in the methodology section. Subtotals of total operating cost, total fixed cost, and total pre-harvest and harvest costs are presented on a per-acre and per-unit basis. Table 2 reports a net-return range analysis, which provides information on the sensitivity of the estimated net return for the specified crop to

variations in either yield per acre or price per unit based on production costs. For each crop, net returns are estimated for 25 price-yield combinations. For example, in Table 2, a price of \$9.00 per flat, with a yield of 2,600 flats, would provide an estimated net return of \$948.00 per acre. The ranges for both price and yield are intended to be broad enough to include the actual season average prices and yields obtained by growers in any given area. In the example provided, price received varies from \$5.00 to \$13.00 per flat and yields range from 2,400 to 3,200 flats per acre.

Conclusion

To reiterate, the vegetable budgets presented in these reports are intended to reflect production practices that are considered typical for any given crop in a given area. Cost estimates resulting from this process should not be considered as representing the average cost of production in a statistical sense, nor should they be considered as necessarily relating to recommended production practices. Please contact the authors with any questions concerning the commodity budgets.

Additional Florida Commodity Budget Data

Additional budgets for vegetables, field, and forage crops produced in the North Florida area; citrus, and forage crops in the South Florida area; and various miscellaneous commodity cost studies for Georgia, Alabama, and South Carolina can also be found via the *Commodity Budgets* web link. For more information, please contact the authors -- Scott A. Smith at SASmith@ifas.ufl.edu or Timothy G. Taylor at TGTaylor@ifas.ufl.edu.

Table 1. Sample per acre cost summary report.

Category*	Average per Acre (dollars)	Average per Flat (dollars)
Yield (average 8-10 pound flats)	2,800.00	
Operating Costs		
Transplants	1,700.00	
Fertilizer	343.75	
Fumigant	684.00	
Fungicide	717.46	
Herbicide	112.40	
Insecticide	556.94	
General Farm Labor	43.91	
Machinery Variable Cost	346.52	
Tractor Driver Labor	283.59	
Miscellaneous		
Trickle Tube	360.00	
Plastic Mulch	279.99	
Scouting	55.00	
Predatory Mites	120.00	
Cover Crop Seed	37.50	
Crop Insurance	100.00	
Farm Vehicles	87.94	
Transplant Labor	220.00	
Plastic Disposal	75.00	
Cut Runners, Hoe, and Weed	120.00	
Interest on Operating Capital	486.28	
Total Operating Cost	1,000.00	
Fixed Costs		
Land Rent	1,000.00	
Machinery Fixed Cost	172.37	
Overhead	2,225.09	
Total Fixed Cost	3,397.46	
Total Preharvest Cost	<u>10,128.33</u>	<u>3.62</u>
Harvest and Marketing Costs		
Sell Berries	2,520.00	0.90
Pick Berries	4,900.00	1.75
Pack, Load, and Haul Berries	700.00	0.25
Harvest Supervision	420.00	0.15
Boxes and Cups	4,732.00	1.69
Total Harvest and Marketing Costs	13,272.00	4.74
Total Cost	<u>23,400.33</u>	<u>8.36</u>
* Strawberries: estimated production costs per acre in the Plant City area, 2001-2002.		

Table 2. Sample per acre net return analysis.

Yield* (number of flats)	Net Return per Acre (dollars per flat)				
	<i>\$5 per flat</i>	<i>\$7 per flat</i>	<i>\$9 per flat</i>	<i>\$11 per flat</i>	<i>\$13 per flat</i>
2,400	-9,504.00	-4,704.00	96.00	4,896.00	9,696.00
2,600	-9,452.00	-4,252.00	948.00	6,148.00	11,348.00
2,800	-9,400.00	-3,800.00	1,800.00	7,400.00	13,000.00
3,000	-9,348.00	-3,348.00	2,652.00	8,652.00	14,652.00

* Strawberries: estimated net returns per acre for various price and yield combinations in the Plant City area, 2001, 2002.