Estimated Costs of Producing, Harvesting & Marketing Blackberries in the Southeastern United States

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Study Objectives

1. Estimate the costs of growing, harvesting and marketing blackberries
2. Evaluate the effect of varying prices and yields
3. Evaluate the profitability of establishing a blackberry planting

Procedures

1. Budget was based on a 1 A blackberry planting
2. Production practices were based on management practices recommended by Extension Specialists and Farmers
3. Equipment costs were based on 2003 purchase prices
4. Input prices were collected from dealers who supply NC blackberry growers

Equipment Investment – Prep Year

Tractor, 60 hp	25,300
Truck, ½ Ton	25,000
Boom Sprayer	750
Chisel Plow, 7ft	3,000
Disk, 9ft, 2-row	5,000
Rotary Mower, 7ft	2,600
Irrigation Well	2,000
Total	$63,650

Equipment Investment – 1st Year

Plastic Layer/Fumigator	$7,000
Soil Auger	425
Drip Irrigation & Pump	6,031
Fertilizer Injector	400
Utility Trailer	2,000
PTO Blast Sprayer	3,100
Total	$18,925

Equipment Investment – 2nd Year

Fruit Scale	$ 225
Utility Refrigerators	5,000
Portable FACU (2)	5,000
Total	$10,225

Portable FACU

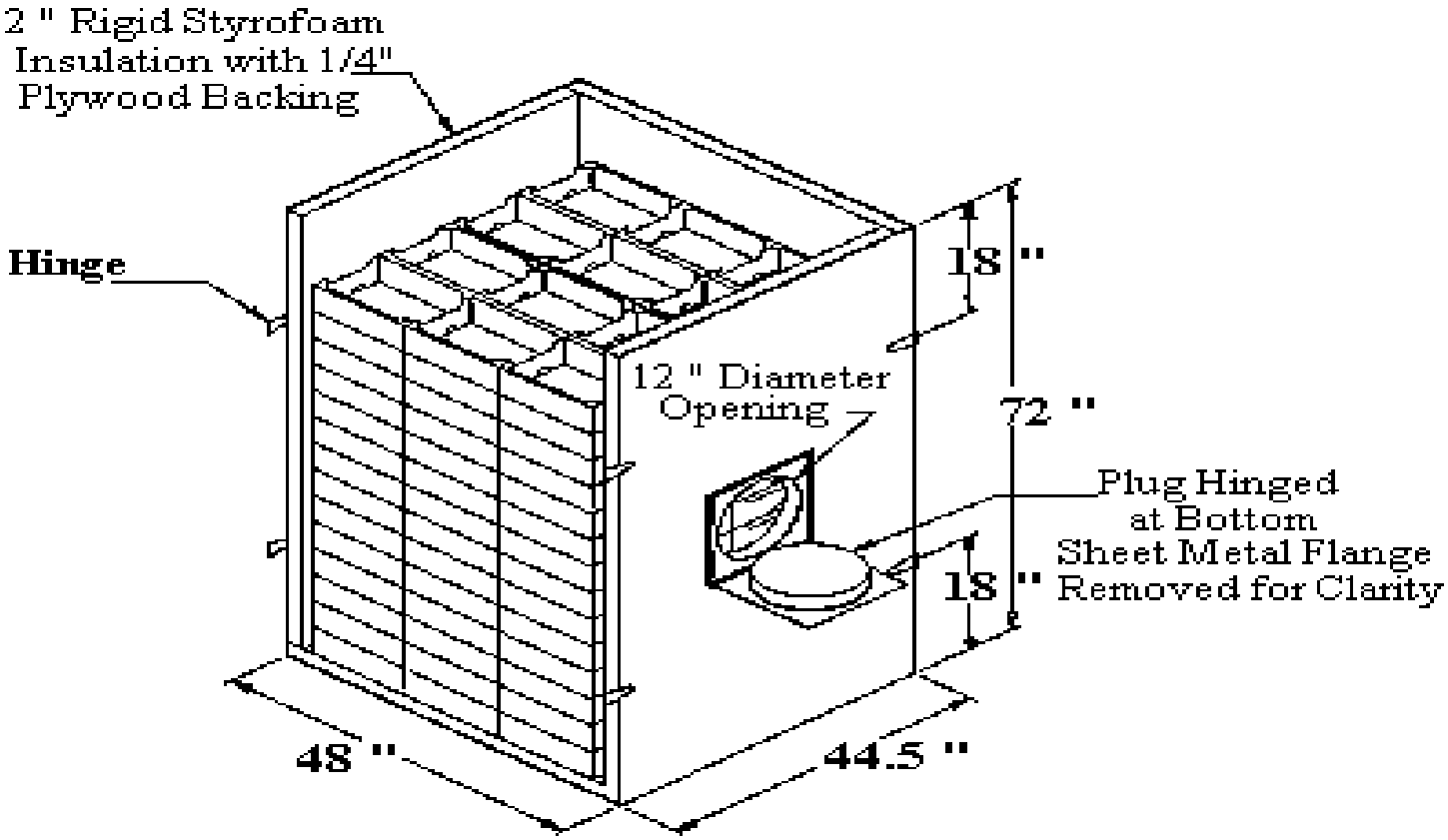
- Portable Forced-Air Cooling Unit (FACU)
- Designed to fit in a standard size pick-up truck.
- Used to keep berries cool as the fruit is being transported to the wholesale market
- AG-414-7, *Cool & Ship: A low-Cost portable Forced Air Cooling Unit*, Michael D. Boyette, NC Cooperative Extension Service

- http://www.bae.ncsu.edu/programs/extension/publicat/postharv/ag-414-7/

Portable FACU

- Advantage of the Cool and Ship System **Inexpensive**—low initial cost compared to a stationary cooling facility.
- **Reusable**—can be disassembled for easy transport.
- **Transportable**—no need for a refrigerated truck.
- **Versatile**—can be used for a variety of produce.
- **Energy Efficient**—takes less energy than a stationary facility.
- **Protects the Produce**—prevents condensation or contamination.

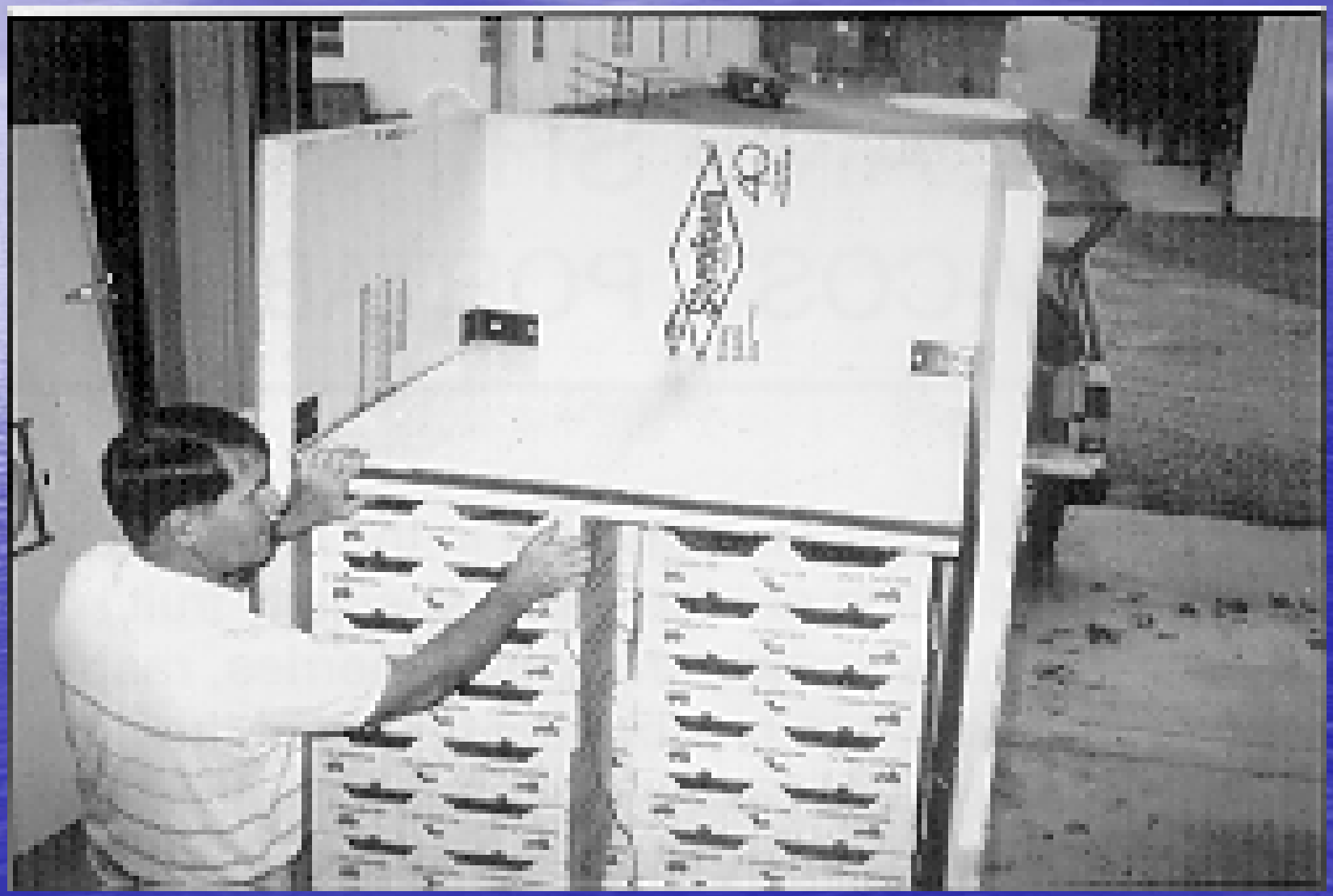
Portable FACU



Pictorial View

Top and One Side Removed for Clarity

Portable FACU



Portable FACU

Blackberry Yield Pattern (Pounds per Acre)

Year	Projected Yield
0	0 lbs
1	0 lbs
2	10,000 lbs
3 thru 9	12,500 lbs
10	10,000 lbs

Labor Requirements

Prep Year	
May	28
Total	65
1st Year	
March	49
April	123
Total	225

Labor Requirements

2nd & 10th Years

May	500
June	482
Total	1,120

3rd – 9th Years

May	639
June	626
Total	1,403

Assumptions – Labor Costs

1. Labor Costs
   a. Hired employees: $8.25 per hour
   b. Owner/operator: $16.39 per hour
2. Costs intended to represent “True” Labor costs not just Wage Rates. Includes:
   a. FICA
   b. Unemployment Insurance
   c. Workers’ Compensation
   d. Adjustments for paid leaves

Assumptions – Annual Expenses at Full Production

1. Land Charge	$	0.00
2. Management charge		0.00
3. General overhead expenses		30.00
4. General operating capital		45.29
5. Property taxes		18.00
6. Miscellaneous costs		40.00
7. Internet service		60.00
8. Grower meeting expenses		348.00
Total		$541.29

Assumptions

1. Marketable Yields
   a. 50% sold at a PYO operation
   b. 50% sold wholesale to a grocery store (s)

Estimated Costs for the Prep Year ($/A)

Site Preparation	$ 403	4.1 %
Blackberry Plants (1,090 plants)	3,819	38.2 %
Trellis Supplies	5,186	52.0 %
Other	562	5.6 %
Total Cost	$9,970	

Estimated Costs for the 1st Year ($/A)

Planting Prep & Planting	$ 1,109	28.0 %
Trellis Construction	1,045	26.4 %
Replanting (100 plants)	408	10.3 %
Maintenance	449	11.3 %
Pruning Expenses	116	2.9 %
Other	838	21.1 %
Total	$ 3,965	

Estimated Costs with a Yield of 10,000 Pounds Per Acre ($/A)

Harvest/Marketing	$11,872	76.5 %
Irrigation	402	2.6 %
Maintenance	1,742	11.2 %
Other	1,498	9.7 %
Total	$15,514	

Estimated Costs with a Yield of 12,500 Pounds Per Acre ($/A)

Harvest/Marketing	$16,019	81.9 %
Irrigation	392	2.0 %
Maintenance	1,674	8.6 %
Other	1,476	7.5 %
Total	$19,561	

Harvest & Marketing Expenses for a Yield of 12,500 lbs per Acre ($/A)

	Equ	Mat	Labor	Total
Prep Activities	0	0	49	49
PYO Harvest	0	781	738	1,519
Wholesale:				
- Harvest	36	1,568	10,244	11,848
- Refrigeration	639	0	0	639
- Transportation	701	0	1,180	1,881
Clean-up	0	0	82	82

Harvest and Wholesale Marketing (11,500 lbs/A)

- 6 week harvest season
- Harvest blackberries 4 times a week
- Wholesale market requires a 100 miles round trip and 3 hours
- Truck costs = $14.60 per hour
- Portable FACU = $0.242 per hour
- Refrigerator = $0.194 per hour
- Manager costs = $ 16.39 per hour

Estimated Net Revenues per Acre

Price ($/lb)	8,500	10,500	12,500	14,500	16,500
1.15 / 2.00	-5,044	-2,459	126	2,712	5,297
1.20 / 2.25	-3,769	-884	2,001	4,887	7,772
1.25 / 2.50	-2,494	691	3,876	7,062	10,247
1.30 / 2.75	-1,219	2,266	5,751	9,237	12,722
1.35 / 3.00	56	3,841	7,626	11,412	15,197

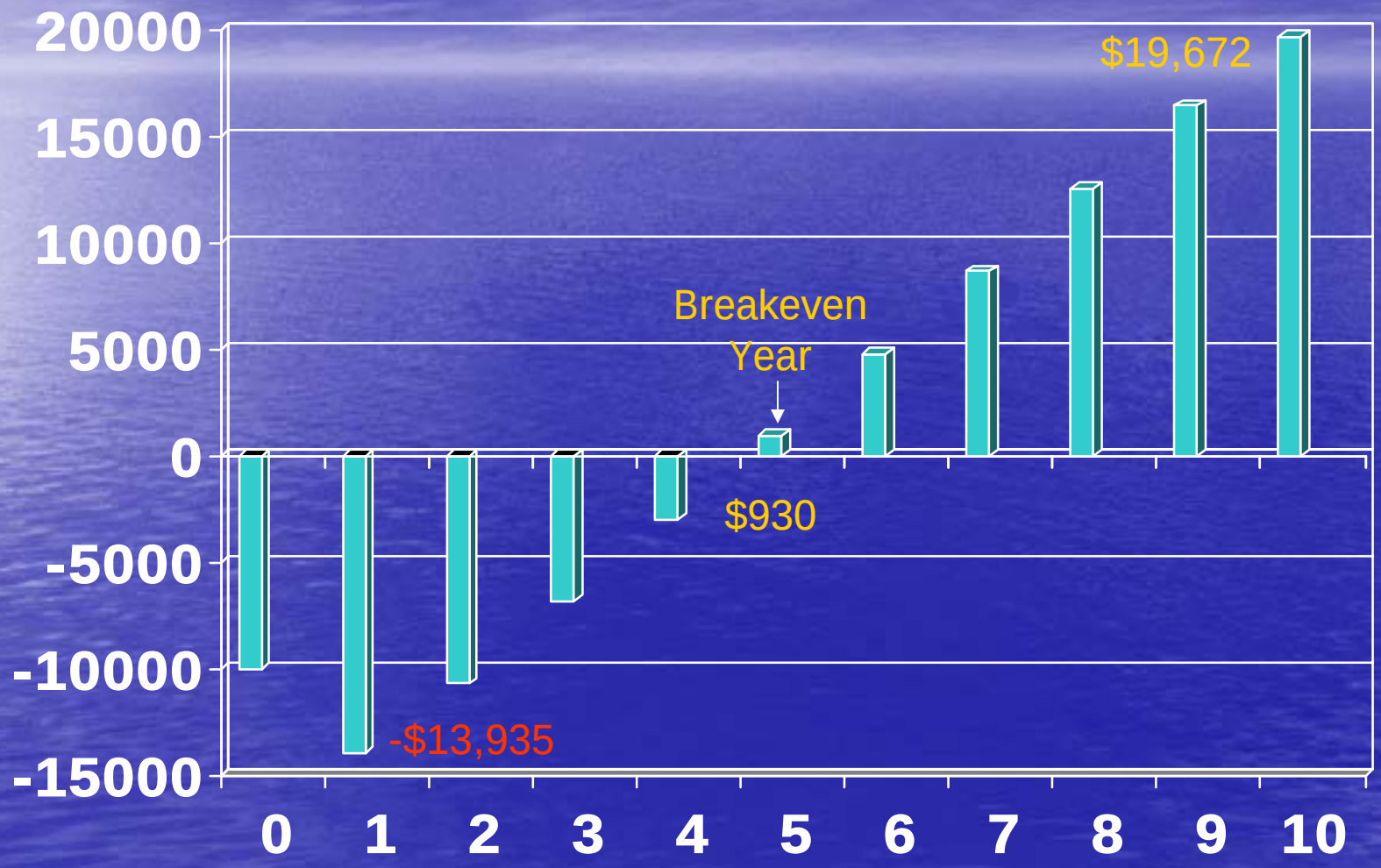
Estimated Breakeven Yields for Various Price Combinations

PYO Price ($/lb)	Wholesale Price ($/lb)	Breakeven Yield (lbs/A)
$ 1.15	$ 2.00	12,402.0
$ 1.20	$ 2.25	11,112.5
$ 1.25	$ 2.50	10,066.0
$ 1.30	$ 2.75	9,199.5
$ 1.35	$ 3.00	8,470.5

Annual Flow of Funds for Blackberries

Year	Net Cash Flow	Accumulated Cash Flow
0	-$ 9,970	-$ 9,970
1	-$ 3,965	-$ 13,935
2	$ 3,235	-$ 10,700
3	$ 3,876	-$ 6,823
4	$ 3,876	-$ 2,946
5	$ 3,876	$ 930
6	$ 3,876	$ 4,806
7	$ 3,876	$ 8,683

Accumulated Cash Flow



Summary

1. Labor is the most expensive cost category (70% @ 12,500 lbs/A)
2. If price combination is $1.25 & $2.50 per pound, you will need a minimum volume of 10,066 lbs to cover expenses in years 3 through 9
3. Cash Flow analysis reveals that blackberry production can be a profitable venture

!!!!Warnings!!!!

- All budgets are only guides and are not substitutes for calculating costs and returns!
- Do not expand without a market!
- Do not enter without a market!

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