

ESTIMATED COSTS, GROSS REVENUES AND RETURNS FOR COMMERCIAL BLACKBERRY PRODUCTION FOR IN NORTH CAROLINA

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This budget presents the estimated costs of producing and harvesting blackberries in North Carolina along with an analysis of the effects of varying yields and wholesale prices that can be useful for farmers considering starting a commercial blackberry operation or expanding an existing operation. The budget was developed for a representative 10 acre planting with drip irrigation. It was assumed that the management would be near optimal and that all currently recommended practices by the North Carolina Agricultural Extension Service would be followed.

This budget is only a guide and is not meant to be a substitute for growers calculating their own costs and estimating their own breakeven yields. Costs vary from grower to grower due to market conditions, labor supply, age and condition of the machinery and equipment, managerial skill, and many other factors. Since every situation is different, it is recommended that every grower estimate their individual production, harvesting and marketing costs based on their own production techniques, price expectations, local supply of labor, and market situation.

It is also recommended that growers develop a marketing plan and have a marketing strategy before investing in a commercial blackberry operation. Production of high value produce is a risky business and the risk increases without a stable marketing outlet. In extreme cases, growers have experienced financial losses when they were not able to find a suitable market outlet and/or when they did not meet the buyer's expectations.

The spray schedule in this budget is based on a typical year, however, as any grower knows, each year is different and therefore your pests and means of control will likely vary from what is listed. See the NC Ag Chemical or the spray schedule at www.smallfruits.org <<http://www.smallfruits.org>> for a more complete listing of pest control products for blackberries. Mention of a product or vendor does not constitute a guarantee or warranty of the product, nor does it imply recommendation of one product over another. Other products may be suitable depending on soils, weather conditions, farm history, and pest pressures.

Budget Contents:

Key Assumptions

Annual and monthly costs by operation for:

- Preparation Year
- Year 1: Planting Year
- Year 2: First Harvest
- Year 3 through Year 10

Summary of the Monthly Costs

Summary of the Monthly Labor Requirements

Estimated Costs and Returns for Varying Yields and Wholesale Prices

Investment Analysis

**KEY ASSUMPTIONS FOR ESTIMATING THE COST OF PRODUCING BLACKBERRIES
FOR THE COMMERCIAL MARKET IN THE SOUTHEASTERN UNITED STATES**

Marketing Assumptions:

Base Yield In Pounds (Years 3 through 10)	14,500
Marketable Blackberries	
Percent of Base Yield	80.0%
Pounds	11,600
8-oz cups	30,933
Flats	2,578
Culled Blackberries	
Percent of Base Yield	20.0%
Pounds	2,900
 Market Prices	
Marketable Blackberries	
\$/Pound	\$2.67
\$/Flat	\$12.00
Culled Blackberries	
\$/Pound	\$0.00

Selected Input prices:

Fuel Prices	
Regular Gas	\$2.50
Diesel Fuel	\$2.50
Production Labor	
Owner (\$/Hour)	
Base Wage	\$14.00
Base Wage plus Employer Cost	\$15.72
Employee (\$/Hour)	
Base Wage	\$7.50
Base Wage plus Employer Cost	\$8.47
Harvest Labor Cost	
Picking Labor (\$/Flat)	\$3.50
Field Supervisor (\$/Flat)	\$0.50
Sorting Room Labor (\$/Flat)	\$0.25
Transporting Berries from Field (\$/Hour)	\$7.50
Packing Materials	
8-oz Clamshells (each)	\$0.12
Flats (each)	\$0.55

ESTIMATED BLACKBERRY PRODUCTION COSTS PER ACRE: LAND PREPARATION

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
February						
	Attend Grower Meeting	0.00	25.00	40.68	65.68	
Total February		\$0.00	\$25.00	\$40.68	\$65.68	
April						
	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Sample Soil	0.00	0.00	4.24	4.24	
	Nematode assay NCDA&CS	0.00	2.00	4.24	6.24	
Total April		\$0.00	\$8.00	\$8.47	\$16.47	
May						
	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Remove noxious weeds from field perimeter	0.00	0.00	203.40	203.40	
	Apply Herb	4.33	0.00	4.24	8.57	
	Simazine	0.00	15.75	0.00	15.75	
	Plow Field	12.65	0.00	11.19	23.84	
	Disc Field	6.79	0.00	5.59	12.39	
	Order & Plant cover crop	3.38	14.00	3.56	20.94	
	Apply Nutrients	3.38	0.00	3.56	6.94	
	Lime	0.00	1.98	0.00	1.98	
	Ammonium nitrate	0.00	10.00	0.00	10.00	
Total May		\$30.55	\$47.73	\$231.54	\$309.81	
June - September						
	Internet service (Monthly Fee)	0.00	24.00	0.00	24.00	
	Mow Cover Crop	13.86	0.00	12.71	26.57	
Total June-September		\$13.86	\$24.00	\$12.71	\$50.57	
October						
	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
Total October		\$0.00	\$6.00	\$0.00	\$6.00	
November						
	Internet service	0.00	6.00	0.00	6.00	
Total November		\$0.00	\$6.00	\$0.00	\$6.00	
December						
	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Order plants	0.00	1,633.50	3.93	1,637.43	
	Order trellis supplies*	0.00	2,410.40	15.72	2,426.12	
Total December		0.00	4,049.90	19.65	4,069.55	
Annual Administrative Costs						
	Real Estate Taxes	0.00	16.00	0.00	16.00	
	Management Fee	0.00	10.00	0.00	10.00	
	Net Land Rent	0.00	100.00	0.00	100.00	
	Miscellaneous	0.00	35.00	0.00	35.00	
	Overhead (Utilities, legal fees, etc.)	0.00	25.00	0.00	25.00	
Total Annual Administrative Costs		\$0.00	\$186.00	\$0.00	\$186.00	
Seasonal Costs						
	1/2 Ton Pick-up	25.50	0.00	20.34	45.84	
	Operating Capital	0.00	70.00	0.00	70.00	
Total Seasonal Costs		\$25.50	\$70.00	\$20.34	\$115.84	
TOTAL SITE PREPARATION COSTS		69.90	4,422.63	333.40	4,825.93	

ESTIMATED BLACKBERRY PRODUCTION COSTS PER ACRE: YEAR 1 - PLANTING YEAR

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
Total January		\$0.00	\$6.00	\$0.00	\$6.00	
February						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Attend Grower Meetings	0.00	25.00	40.68	65.68	
	Mark row (flags)	0.00	10.20	42.37	52.57	
Total February		\$0.00	\$ 41.20	\$ 83.05	\$ 124.25	
March						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Fumigate Strips (4356 linear feet)	164.81	0.00	30.51	195.32	
	Telone-chloropicrin-35	29.00	125.00	30.51	184.51	
	Plastic film	0.00	144.00	0.00	144.00	
	Drip tape	0.00	115.00	0.00	115.00	
	Plant Blackberries	0.00	0.00	271.20	271.20	
	Set up irrigation system	12.08	0.00	84.75	96.83	
Total March		\$205.89	\$390.00	\$416.97	\$1,012.86	
April						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Order Pruning Equipment	0.00	0.00	4.72	4.72	
	Order & Replant	0.00	354.25	59.32	413.57	
	Mark post locations	0.00	0.00	42.37	42.37	
	Auger post holes	51.93	0.00	50.85	102.78	
	Build Trellis	0.00	0.00	847.49	847.49	
	Irrigate & apply fertilizer	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	25.19	0.00	25.19	
	Mow alleys	5.54	0.00	4.95	10.49	
	Train	0.00	0.00	8.47	8.47	
Total April		\$106.93	\$385.44	\$1,022.42	\$1,514.79	
May						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Hand weed	0.00	0.00	33.90	33.90	
	Mow alleys	5.54	0.00	5.08	10.63	
	Irrigate & apply fertilizer	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	25.19	0.00	25.19	
Total May		\$54.99	\$31.19	\$43.22	\$129.41	
June						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow alleys	5.54	0.00	5.08	10.63	
	Irrigate	395.61	0.00	33.90	429.51	
Total June		\$401.15	\$6.00	\$38.98	\$446.14	
July						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow alleys	11.09	0.00	10.17	21.26	
	Irrigate	494.51	0.00	42.37	536.89	
Total July		\$505.60	\$6.00	\$52.54	\$564.14	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
August						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	_____
	Training & pruning 40.00 hours	0.69	0.00	339.00	339.69	_____
	Training Supplies	0.00	250.00	0.00	250.00	_____
	Mow alleys	5.54	0.00	5.08	10.63	_____
	Irrigate	395.61	0.00	33.90	429.51	_____
	Training & pruning 40.00 hours	0.69	0.00	339.00	339.69	_____
	Training Supplies	0.00	250.00	0.00	250.00	_____
Total August		\$402.54	\$506.00	\$716.98	\$1,625.52	_____
September						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	_____
	Training & pruning 40.00 hours	0.69	0.00	339.00	339.69	_____
	Training Supplies	0.00	250.00	0.00	250.00	_____
	Apply Herbicide	4.33	0.00	4.24	8.57	_____
	Gramoxone	0.00	3.52	0.00	3.52	_____
	Training & pruning 40.00 hours	0.69	0.00	339.00	339.69	_____
	Training Supplies	0.00	250.00	0.00	250.00	_____
	Mow alleys	5.54	0.00	5.08	10.63	_____
Total September		\$11.26	\$509.52	\$687.32	\$1,208.10	_____
October - December						
	Internet service (Monthly fee)	0.00	18.00	0.00	18.00	_____
Total October - December		\$0.00	\$18.00	\$0.00	\$18.00	_____
Annual Administrative Costs						
	Real Estate Taxes	0.00	16.00	0.00	16.00	_____
	Management Fee	0.00	10.00	0.00	10.00	_____
	Net Land Rent	0.00	100.00	0.00	100.00	_____
	Miscellaneous	0.00	35.00	0.00	35.00	_____
	Overhead (Utilities, legal fees, etc.)	0.00	25.00	0.00	25.00	_____
	Interest on Accumulating Investment	0.00	165.64	0.00	165.64	_____
Total Annual Administrative Costs		\$0.00	\$351.64	\$0.00	\$351.64	_____
Seasonal Costs						
	1/2 Ton Pick-up	63.75	0.00	50.85	114.60	_____
	Operating Capital	0.00	70.00	0.00	70.00	_____
Total Seasonal Costs		\$63.75	\$70.00	\$50.85	\$184.60	_____
TOTAL YEAR 1 PLANTING COSTS		\$1,752.11	\$2,320.99	\$3,112.34	\$7,185.44	_____

ESTIMATED BLACKBERRY PRODUCTION COSTS PER ACRE : YEAR 2 - FIRST HARVEST

(Marketable Yield = 9,200 pounds, or 2,044 flats 12 - 8 oz cups)

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Train/Prune	6.93	0.00	40.68	47.61	
	Order Harvest Supplies	0.00	0.00	31.44	31.44	
	Wholesale Production 80.0%					
	6 oz - clam shells with labels	0.00	2,821.33	0.00	2,821.33	
	Flats (12 1/2 pint clam shells/flat)	0.00	1,124.44	0.00	1,124.44	
	Culls Cullage 20.0%					
	5 - Gallon Cull containers	0.00	337.50	0.00	337.50	
	Total January	\$6.93	\$4,289.28	\$72.12	\$4,368.34	
February						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Attend Grower Meetings	0.00	25.00	203.40	228.40	
	Apply Fungicide (2x)	5.82	0.00	4.24	10.06	
	Liquid Lime Sulfur	0.00	100.00	0.00	100.00	
	Train/Prune	3.47	0.00	101.70	105.17	
	Total February	\$9.29	\$131.00	\$309.34	\$449.63	
March						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Remove Plastic	0.00	0.00	677.99	677.99	
	Apply Insecticide	5.82	0.00	4.24	10.06	
	Capture 2EC	0.00	3.12	0.00	3.12	
	Apply Insecticide & Fungicide	5.82	0.00	4.24	10.06	
	Capture 2EC	0.00	3.12	0.00	3.12	
	Captan 50 WP	0.00	16.00	0.00	16.00	
	Nova 40W	0.00	15.00	0.00	15.00	
	Set up irrigation system	0.75	0.00	84.75	85.50	
	Irrigate & apply fertilizer	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	1.25	0.00	1.25	
	Apply Fertilizer	5.82	0.00	4.24	10.06	
	Boron (20% Solubor)	0.00	1.58	0.00	1.58	
	Apply Herb	4.33	0.00	4.24	8.57	
	Gramoxone	0.00	3.52	0.00	3.52	
	Apply Herb	4.33	0.00	4.24	8.57	
	Surflan	0.00	92.00	0.00	92.00	
	Total March	\$76.33	\$141.59	\$788.18	\$1,006.10	
April						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Captan 50 WP	0.00	16.00	0.00	16.00	
	Nova 40W	0.00	15.00	0.00	15.00	
	Irrigate & apply fertilizer	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	22.90	0.00	22.90	
	Harvest Preparation	0.00	0.00	14.74	14.74	
	Beehives	0.00	150.00	0.00	150.00	
	Total April	\$61.09	\$279.90	\$27.46	\$368.45	
May						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
May, cont.						
	Mow Alleys	5.54	0.00	4.95	10.49	
	Irrigate/Fertilize	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	22.90	0.00	22.90	
	Apply Insecticide & Fungicide	5.82	0.00	4.24	10.06	
	Capture 2 EC	0.00	3.12	0.00	3.12	
	Elevate 50WDG	0.00	60.00	0.00	60.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Captan 50WP	0.00	16.00	0.00	16.00	
	Nova 40W	0.00	15.00	0.00	15.00	
	Apply Insecticide	5.82	0.00	4.24	10.06	
	Spintor	0.00	22.00	0.00	22.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Bird Deterrent Management	0.00	0.00	4.24	4.24	
	Irrigate	487.90	0.00	42.37	530.28	
	Beehives (Rental)	0.00	150.00	0.00	150.00	
Total May		\$566.18	\$365.02	\$72.76	\$1,003.96	
June						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow alleys	5.54	0.00	4.95	10.49	
	Bird Deterrent Management	0.00	0.00	4.24	4.24	
	Beehives (Rental)	0.00	150.00	0.00	150.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Elevate 50WDG	0.00	60.00	0.00	60.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Apply Insecticide & Fungicide	5.82	0.00	4.24	10.06	
	Nova 40W	0.00	15.00	0.00	15.00	
	Malathion 57 EC	0.00	27.96	0.00	27.96	
	Irrigate	390.32	0.00	33.90	424.22	
	Food Safety Costs	0.00	143.00	0.00	143.00	
	Harvest Labor					
	Picking Labor ¹	0.00	0.00	2,385.19	2,385.19	
	Field Supervisor ¹	0.00	0.00	340.74	340.74	
	Transport fruit from field ²	24.51	0.00	120.12	144.63	
	Sorting room ³	0.00	0.00	170.37	170.37	
	Cooler/Cooling Unit Costs	297.86	0.00	0.00	297.86	
	Sorting/Storage Room Costs	56.78	0.00	0.00	56.78	
	Refrigerated Truck	22.72	0.00	13.56	36.28	
	Mow alleys	5.54	0.00	4.95	10.49	
Total June		\$820.74	\$471.96	\$3,090.74	\$4,383.44	
July						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Irrigate	487.90	0.00	42.37	530.28	
	Leaf Analysis	0.00	5.00	0.00	5.00	
	Remove Canes	2.77	0.00	67.80	70.57	
	Mow alleys	5.54	0.00	5.08	10.63	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Kocide	0.00	20.00	0.00	20.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
July, cont.						
	Apply Insecticide	5.82	0.00	4.24	10.06	
	Capture 2EC	0.00	3.12	0.00	3.12	
	Bird Deterrent Management	0.00	0.00	3.81	3.81	
	Harvest Labor					
	Picking Labor ¹	0.00	0.00	2,385.19	2,385.19	
	Field Supervisor ¹	0.00	0.00	340.74	340.74	
	Transport fruit from field ²	24.51	0.00	120.12	144.63	
	Sorting room ³	0.00	0.00	170.37	170.37	
	Removing soft berries (20 hrs)	0.00	0.00	169.50	169.50	
	Cooler/Cooling Unit Costs	307.79	0.00	0.00	307.79	
	Sorting/Storage Room Costs	58.97	0.00	0.00	58.97	
	Refrigerated Truck	22.72	0.00	13.56	36.28	
Total July		\$927.66	\$104.12	\$3,331.27	\$4,363.05	
August						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow alleys	5.54	0.00	5.08	10.63	
	Irrigate	390.32	0.00	33.90	424.22	
	Harvest Labor					
	Picking Labor ¹	0.00	0.00	2,385.19	2,385.19	
	Field Supervisor ¹	0.00	0.00	340.74	340.74	
	Transport fruit from field ²	25.45	0.00	103.95	129.40	
	Sorting room ³	0.00	0.00	170.37	170.37	
	Removing soft berries (20 hrs)	0.00	0.00	169.50	169.50	
	Cooler/Cooling Unit Costs	307.79	0.00	0.00	307.79	
	Sorting/Storage Room Costs	58.97	0.00	0.00	58.97	
	Refrigerated Truck	22.72	0.00	13.56	36.28	
	Training & pruning 20.00 hours	0.69	0.00	169.50	170.19	
	Training Supplies	0.00	100.00	0.00	100.00	
	Training & pruning 20.00 hours	0.69	0.00	169.50	170.19	
	Training Supplies	0.00	100.00	0.00	100.00	
Total August		\$812.18	\$206.00	\$3,561.29	\$4,579.46	
September						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Training & pruning 20.00 hours	0.69	0.00	169.50	170.19	
	Training Supplies	0.00	100.00	0.00	100.00	
	Training & pruning 20.00 hours	0.69	0.00	169.50	170.19	
	Training Supplies	0.00	100.00	0.00	100.00	
Total September		\$1.39	\$206.00	\$339.00	\$546.38	
October						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
Total October		\$0.00	\$6.00	\$0.00	\$6.00	
November						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Herb	4.33	0.00	4.24	8.57	
	Gramoxone	0.00	3.52	0.00	3.52	
	Repair Trellis	0.00	0.00	169.50	169.50	
Total November		\$4.33	\$9.52	\$173.74	\$187.59	
December						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Herb	4.33	0.00	4.24	8.57	
	Surflan	0.00	92.00	0.00	92.00	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
Dec, cont.						
	Apply Herb	4.33	0.00	4.24	8.57	
	Simizine	0.00	5.25	0.00	5.25	
Total December		\$8.66	\$103.25	\$8.48	\$120.39	
Annual Administrative Costs						
	Real Estate Taxes	0.00	16.00	0.00	16.00	
	Management Fee	0.00	10.00	0.00	10.00	
	Net Land Rent	0.00	100.00	0.00	100.00	
	Miscellaneous	0.00	35.00	0.00	35.00	
	Overhead (Utilities, legal fees, etc.)	0.00	25.00	0.00	25.00	
	Interest on Accumulating Investment	0.00	836.04	0.00	836.04	
Total Annual Administrative Costs		\$0.00	\$1,022.04	\$0.00	\$1,022.04	
Seasonal Costs						
	1/2 Ton Pick-up	63.75	0.00	50.85	114.60	
	Operating Capital	0.00	70.00	0.00	70.00	
Total Seasonal Costs		\$63.75	\$70.00	\$50.85	\$184.60	
TOTAL ANNUAL COSTS - 2nd YEAR		\$3,358.54	\$7,405.67	\$11,825.23	\$22,589.44	

Notes:

Harvest Labor	¹ Picking Labor = \$3.50 per flat ¹ Field Supervisor = 50¢ per flat ² Transporting fruit from field = 1 person @ 5.5 hrs per day, 6 days per week ³ Sorting room = 25¢ per flat
Cooler/Cooling Unit	Used 24 hours per day, 7 days per week
Sorting/Storage Room	Used 10 hours per day, 6 days per week
Refrigerated Truck	Assumed 4 trips per wk @ 100 miles per trip

ESTIMATED BLACKBERRY PRODUCTION COSTS PER ACRE: YEAR 3 - SECOND HARVEST

(Marketable Yield = 11,600 pounds, or 2,578 flats 12 - 8 oz cups)

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
January						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Train/Prune	10.40	0.00	305.10	315.50	
	Order Harvest Supplies	0.00	0.00	31.44	31.44	
	Wholesale Production 80.0%	0.00	0.00	0.00	0.00	
	6 oz clam shells with labels	0.00	3,557.33	0.00	3,557.33	
	Flats (12 1/2 pint clam shells/flat)	0.00	1,417.78	0.00	1,417.78	
	Culls Cullage 20.0%	0.00	0.00	0.00	0.00	
	5 - gallon cull containers	0.00	337.50	0.00	337.50	
	Total January	\$10.40	\$5,318.61	\$336.54	\$5,665.55	
February						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Attend Grower Meetings	0.00	25.00	40.68	65.68	
	Apply Fungicide (2x)	5.82	0.00	4.24	10.06	
	Liquid Lime Sulfur	0.00	100.00	0.00	100.00	
	Train/Prune	5.20	0.00	152.55	157.75	
	Total February	\$11.02	\$131.00	\$197.47	\$339.49	
March						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Insecticide	5.82	0.00	4.24	10.06	
	Capture 2EC	0.00	3.12	0.00	3.12	
	Apply Insecticide & Fungicide	5.82	0.00	4.24	10.06	
	Capture 2EC	0.00	3.12	0.00	3.12	
	Captan 50 WP	0.00	16.00	0.00	16.00	
	Nova 40W	0.00	15.00	0.00	15.00	
	Set up irrigation system	0.75	0.00	84.75	85.50	
	Irrigate & apply fertilizer	49.45	0.00	4.24	53.69	
	18-18-18 (30 lbs N/month)	0.00	1.25	0.00	1.25	
	Apply Fertilizer	5.82	0.00	4.24	10.06	
	Boron (20% Solubor)	0.00	1.58	0.00	1.58	
	Apply Herb	4.33	0.00	4.24	8.57	
	Gramoxone	0.00	3.52	0.00	3.52	
	Apply Herb	4.33	0.00	4.24	8.57	
	Surflan	0.00	92.00	0.00	92.00	
	Total March	\$76.33	\$141.59	\$110.19	\$328.11	
April						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Captan 50 WP	0.00	16.00	0.00	16.00	
	Nova 40W	0.00	15.00	0.00	15.00	
	Irrigate & apply fertilizer	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	38.50	0.00	38.50	
	Harvest Preparation	0.00	0.00	16.95	16.95	
	Beehives	0.00	150.00	0.00	150.00	
	Total April	\$61.09	\$295.50	\$29.67	\$386.26	
May						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow Alleys	5.54	0.00	4.95	10.49	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
May, cont.						
	Irrigate/Fertilize	49.45	0.00	4.24	53.69	
	18-18-18 (20 lbs N/month)	0.00	44.00	0.00	44.00	
	Apply Insecticide & Fungicide	5.82	0.00	4.24	10.06	
	Capture 2 EC	0.00	3.12	0.00	3.12	
	Elevate 50WDG	0.00	60.00	0.00	60.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Captan 50WP	0.00	16.00	0.00	16.00	
	Nova 40W	0.00	15.00	0.00	15.00	
	Apply Insecticide	5.82	0.00	4.24	10.06	
	Spintor	0.00	22.00	0.00	22.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Bird Deterrent Management	0.00	0.00	4.24	4.24	
	Irrigate (30 hours)	494.51	0.00	42.37	536.89	
	Beehives (Rental)	0.00	150.00	0.00	150.00	
Total May		\$572.79	\$386.12	\$72.76	\$1,031.67	
June						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow alleys	5.54	0.00	4.95	10.49	
	Bird Deterrent Management	0.00	0.00	4.24	4.24	
	Beehives (Rental)	0.00	150.00	0.00	150.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Elevate 50WDG	0.00	60.00	0.00	60.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Apply Insecticide & Fungicide	5.82	0.00	4.24	10.06	
	Nova 40W	0.00	15.00	0.00	15.00	
	Malathion 57 EC	0.00	27.96	0.00	27.96	
	Irrigate (24 hours)	395.61	0.00	33.90	429.51	
	Food Safety Costs	0.00	143.00	0.00	143.00	
	Harvest Labor					
	Picking Labor ¹	0.00	0.00	3,007.41	3,007.41	
	Field Supervisor ¹	0.00	0.00	429.63	429.63	
	Transport fruit from field ²	24.51	0.00	120.12	144.63	
	Sorting room ³	0.00	0.00	214.81	214.81	
	Cooler/Cooling Unit Costs	297.86	0.00	0.00	297.86	
	Sorting/Storage Room Costs	56.78	0.00	0.00	56.78	
	Refrigerated Truck	22.72	0.00	13.56	36.28	
	Mow alleys	5.54	0.00	4.95	10.49	
Total June		\$826.03	\$471.96	\$3,846.29	\$5,144.28	
July						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Irrigate (30 hours)	494.51	0.00	42.37	536.89	
	Leaf Analysis	0.00	5.00	0.00	5.00	
	Remove Canes	2.77	0.00	67.80	70.57	
	Mow alleys	5.54	0.00	5.08	10.63	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Kocide	0.00	20.00	0.00	20.00	
	Apply Fungicide	5.82	0.00	4.24	10.06	
	Pristine WG	0.00	70.00	0.00	70.00	
	Apply Insecticide	5.82	0.00	4.24	10.06	
	Capture 2EC	0.00	3.12	0.00	3.12	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
July, cont.						
	Bird Deterrent Management	0.00	0.00	4.24	4.24	
	Harvest Labor					
	Picking Labor ¹	0.00	0.00	3,007.41	3,007.41	
	Field Supervisor ¹	0.00	0.00	429.63	429.63	
	Transport fruit from field ²	24.51	0.00	120.12	144.63	
	Sorting room ³	0.00	0.00	214.81	214.81	
	Removing soft berries (20 hrs)	0.00	0.00	169.50	169.50	
	Cooler/Cooling Unit Costs≤	307.79	0.00	0.00	307.79	
	Sorting/Storage Room Costs	58.97	0.00	0.00	58.97	
	Refrigerated Truck	22.72	0.00	13.56	36.28	
Total July		\$934.28	\$104.12	\$4,087.25	\$5,125.64	
August						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Mow alleys	5.54	0.00	5.08	10.63	
	Irrigate (24 hours)	395.61	0.00	33.90	429.51	
	Harvest Labor					
	Picking Labor ¹	0.00	0.00	3,007.41	3,007.41	
	Field Supervisor ¹	0.00	0.00	429.63	429.63	
	Transport fruit from field ²	24.51	0.00	120.12	144.63	
	Sorting room ³	0.00	0.00	214.81	214.81	
	Removing soft berries (20 hrs)	0.00	0.00	169.50	169.50	
	Cooler/Cooling Unit Costs	307.79	0.00	0.00	307.79	
	Sorting/Storage Room Costs	58.97	0.00	0.00	58.97	
	Refrigerated Truck	22.72	0.00	13.56	36.28	
	Training & pruning 36.00 hours	10.40	0.00	305.10	315.50	
	Training Supplies	0.00	100.00	0.00	100.00	
	Training & pruning 36.00 hours	5.20	0.00	305.10	310.30	
	Training Supplies	0.00	100.00	0.00	100.00	
Total August		\$830.74	\$206.00	\$4,604.21	\$5,640.95	
September						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Training & pruning 36.00 hours	5.21	0.00	305.10	310.30	
	Training Supplies	0.00	100.00	0.00	100.00	
	Training & pruning 36.00 hours	5.20	0.00	305.10	310.30	
	Training Supplies	0.00	100.00	0.00	100.00	
Total September		\$10.41	\$206.00	\$610.19	\$726.60	
October						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
Total October		\$0.00	\$6.00	\$0.00	\$6.00	
November						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Herb	4.33	0.00	4.24	8.57	
	Gramoxone	0.00	3.52	0.00	3.52	
	Repair Trellis	0.00	0.00	169.50	169.50	
Total November		\$4.33	\$9.52	\$173.74	\$187.59	
December						
	Internet service (Monthly fee)	0.00	6.00	0.00	6.00	
	Apply Herb	4.33	0.00	4.24	8.57	
	Surflan	0.00	92.00	0.00	92.00	
	Apply Herb	4.33	0.00	4.24	8.57	
	Simizine	0.00	5.25	0.00	5.25	
Total December		\$8.66	\$103.25	\$8.48	\$120.39	

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
Annual Administrative Costs						
	Real Estate Taxes	0.00	16.00	0.00	16.00	_____
	Management Fee	0.00	10.00	0.00	10.00	_____
	Net Land Rent	0.00	100.00	0.00	100.00	_____
Administrative Costs cont.						
	Miscellaneous	0.00	35.00	0.00	35.00	_____
	Overhead (Utilities, legal fees, etc.)	0.00	25.00	0.00	25.00	_____
	Interest on Accumulating Investment	0.00	836.04	0.00	836.04	_____
Total Annual Administrative Costs		\$0.00	\$1,022.04	\$0.00	\$1,022.04	_____
Seasonal Costs						
	1/2 Ton Pick-up	63.75	0.00	50.85	114.60	_____
	Operating Capital	0.00	70.00	0.00	70.00	_____
Total Seasonal Costs		\$63.75	\$70.00	\$50.85	\$184.60	_____
TOTAL ANNUAL COSTS - 3rd Year		\$3,409.83	\$8,471.70	\$14,127.65	\$25,909.18	_____

Notes:

Harvest Labor	¹ Picking Labor = \$3.50 per flat ¹ Field Supervisor = 50¢ per flat ² Transporting fruit from field = 1 person @ 5.5 hrs per day, 6 days per week ³ Sorting room = 25¢ per flat
Cooler/Cooling Unit	Used 24 hours per day, 7 days per week
Sorting/Storage Room	Used 10 hours per day, 6 days per week
Refrigerated Truck	Assumed 4 trips per wk @ 100 miles per trip

ESTIMATED BLACKBERRY PRODUCTION COSTS PER ACRE

Year & Month	Equipment Costs	Material Costs	Labor Costs	Total Costs	Your Costs
Land Preparation					
January	0.00	0.00	0.00	0.00	
February	0.00	25.00	40.68	65.68	
March	0.00	0.00	0.00	0.00	
April	0.00	8.00	8.47	16.47	
May	30.55	47.73	231.54	309.81	
June	3.46	6.00	3.18	12.64	
July	3.46	6.00	3.18	12.64	
August	3.46	6.00	3.18	12.64	
September	3.46	6.00	3.18	12.64	
October	0.00	6.00	0.00	6.00	
November	0.00	6.00	0.00	6.00	
December	0.00	4,049.90	19.65	4,069.55	
Annual Charges	0.00	186.00	0.00	186.00	
Seasonal Charges	25.50	70.00	20.34	115.84	
Total Prep Year	\$69.90	\$4,422.63	\$333.40	\$4,825.93	
First Year: Planting Year					
January	0.00	6.00	0.00	6.00	
February	0.00	41.20	83.05	124.25	
March	205.89	390.00	416.97	1,012.86	
April	106.93	385.44	1,022.42	1,514.79	
May	54.99	31.19	43.22	129.41	
June	401.15	6.00	38.98	446.14	
July	505.60	6.00	52.54	564.14	
August	402.54	506.00	716.98	1,625.52	
September	11.26	509.52	687.32	1,208.10	
October	0.00	6.00	0.00	6.00	
November	0.00	6.00	0.00	6.00	
December	0.00	6.00	0.00	6.00	
Annual Charges	0.00	351.64	0.00	351.64	
Seasonal Charges	63.75	70.00	50.85	184.60	
Total First Year	\$1,752.11	\$2,320.99	\$3,112.34	\$7,185.44	
Second Year: Harvest					
	2,044	Flats/A			
January	6.93	4,289.28	72.12	4,368.34	
February	9.29	131.00	309.34	449.63	
March	76.33	141.59	788.18	1,006.10	
April	61.09	279.90	27.46	368.45	
May	566.18	365.02	72.76	1,003.96	
June	820.74	471.96	3,090.74	4,383.44	
July	927.66	104.12	3,331.27	4,363.05	
August	812.18	206.00	3,561.29	4,579.46	
September	1.39	206.00	339.00	546.38	
October	0.00	6.00	0.00	6.00	
November	4.33	9.52	173.74	187.59	
December	8.66	103.25	8.48	120.39	
Annual Charges	0.00	1,022.04	0.00	1,022.04	
Seasonal Charges	63.75	70.00	50.85	184.60	
Total Second Year	\$3,358.54	\$7,405.67	\$11,825.23	\$22,589.44	

Year & Month	Equipment Costs	Material Costs	Labor Costs	Total Costs	Your Costs
Third Through Tenth Year: Harvest		2,578	Flats/A		
January	10.40	5,318.61	336.54	5,665.55	
February	11.02	131.00	197.47	339.49	
March	76.33	141.59	110.19	328.11	
April	61.09	295.50	29.67	386.26	
May	572.79	386.12	72.76	1,031.67	
June	826.03	471.96	3,846.29	5,144.28	
July	934.28	104.12	4,087.25	5,125.64	
August	830.74	206.00	4,604.21	5,640.95	
September	10.41	206.00	610.19	826.60	
October	0.00	6.00	0.00	6.00	
November	4.33	9.52	173.74	187.59	
December	8.66	103.25	8.48	120.39	
Annual Charges	0.00	1,022.04	0.00	1,022.04	
Seasonal Charges	63.75	70.00	50.85	184.60	
Total Third thru Tenth Years	\$3,409.83	\$8,471.70	\$14,127.65	\$26,009.18	

MONTHLY LABOR ESTIMATES FOR BLACKBERRY PRODUCTION

Year & Month	Labor (Person Hours)	Your Estimate	Year & Month	Labor (Person Hours)	Your Estimate
Land Preparation			Second Year: First Harvest		
January	0.000	_____	January	6.800	_____
February	4.800	_____	February	36.500	_____
March	0.000	_____	March	93.002	_____
April	1.000	_____	April	3.240	_____
May	27.320	_____	May	8.602	_____
June	0.375	_____	June ¹	40.361	_____
July	0.375	_____	July ¹	68.711	_____
August	0.375	_____	August ¹	95.450	_____
September	0.375	_____	September	40.000	_____
October	0.000	_____	October	0.000	_____
November	0.000	_____	November	20.500	_____
December	1.250	_____	December	1.001	_____
Miscellaneous Labor	2.400	_____	Miscellaneous Labor	6.000	_____
Total Prep Year	38.270	_____	Total Second Year	420.168	_____
First Year: Planting Year			Third Year through Tenth Year		
January	0.000	_____	January	38.000	_____
February	9.800	_____	February	23.300	_____
March	49.200	_____	March	13.002	_____
April	120.400	_____	April	3.501	_____
May	5.100	_____	May	8.602	_____
June	4.600	_____	June ¹	40.361	_____
July	6.200	_____	July ¹	68.761	_____
August	84.600	_____	August ¹	129.760	_____
September	81.100	_____	September	72.000	_____
October	0.000	_____	October	0.000	_____
November	0.000	_____	November	20.500	_____
December	0.000	_____	December	1.001	_____
Miscellaneous Labor	6.000	_____	Miscellaneous Labor	6.000	_____
Total First Year	367.000	_____	Total Third thru Tenth Years	424.788	_____

¹These estimates do not include picking labor. It was assumed that the grower could secure the services of a custom picking crew.

**ESTIMATED RETURNS FOR COMMERCIAL BLACKBERRY PRODUCTION
FOR VARYING YIELDS AND PRICES PER FLAT**

Wholesale Market (\$/flat)	Marketable Flats per Acre ¹				
	1,237	1,547	1,933	2,320	2,784
\$10.24	(\$5,055)	(\$3,799)	(\$2,229)	(\$659)	\$1,225
\$12.80	(\$1,887)	\$160	\$2,720	\$5,280	\$8,352
\$16.00	\$2,072	\$5,110	\$8,907	\$12,704	\$17,260
\$19.20	\$6,032	\$10,059	\$15,094	\$20,128	\$26,169
\$23.04	\$10,783	\$15,998	\$22,518	\$29,037	\$36,860

¹It was assumed that 80.0% of the total yield was marketable fruit.

**ESTIMATED RETURNS FOR COMMERCIAL BLACKBERRY PRODUCTION
FOR VARYING YIELDS AND PRICES PER POUND**

Wholesale Market (\$/lb)	Yield per Acre ¹ (Pounds)				
	7,424	9,280	11,600	13,920	16,704
\$1.707	(\$5,055)	(\$3,799)	(\$2,229)	(\$659)	\$1,225
\$2.133	(\$1,887)	\$160	\$2,720	\$5,280	\$8,352
\$2.667	\$2,072	\$5,110	\$8,907	\$12,704	\$17,260
\$3.200	\$6,032	\$10,059	\$15,094	\$20,128	\$26,169
\$3.840	\$10,783	\$15,998	\$22,518	\$29,037	\$36,860

¹It was assumed that 80.0% of the total yield was marketable fruit.

**ESTIMATED COSTS, GROSS REVENUES AND RETURNS FOR COMMERCIAL BLACKBERRY
PRODUCTION FOR VARYING YIELDS AND WHOLESALE PRICES PER FLAT**

Yield per Acre	Wholesale Price	Cull Price	Annual Growing Costs			Total Costs	Gross Revenues	Returns
			Equipment	Materials	Labor			
(Flats)	(\$/Flat)	(\$/lb)	(\$/A)	(\$/A)	(\$/A)	(\$/A)	(\$/A)	(\$/A)
1,237	\$10.24	\$0.00	\$3,410	\$5,885	\$8,431	\$17,725	\$12,670	(\$5,055)
1,547	\$12.80	\$0.00	\$3,410	\$6,482	\$9,745	\$19,637	\$19,797	\$160
1,933	\$16.00	\$0.00	\$3,410	\$7,228	\$11,389	\$22,027	\$30,933	\$8,907
2,320	\$19.20	\$0.00	\$3,410	\$7,974	\$13,032	\$24,416	\$44,544	\$20,128
2,784	\$23.04	\$0.00	\$3,410	\$8,870	\$15,004	\$27,284	\$64,143	\$36,860

**ESTIMATED COSTS, GROSS REVENUES AND RETURNS FOR COMMERCIAL BLACKBERRY
PRODUCTION FOR VARYING YIELDS AND WHOLESALE PRICES PER POUND**

Yield per Acre	Wholesale Price	Cull Price	Annual Growing Costs			Total Costs	Gross Revenues	Returns
			Equipment	Materials	Labor			
(Pounds)	(\$/lb)	(\$/lb)	(\$/A)	(\$/A)	(\$/A)	(\$/A)	(\$/A)	(\$/A)
7,424	\$1.707	\$0.00	\$3,410	\$5,885	\$8,431	\$17,725	\$12,670	(\$5,055)
9,280	\$2.133	\$0.00	\$3,410	\$6,482	\$9,745	\$19,637	\$19,797	\$160
11,600	\$2.667	\$0.00	\$3,410	\$7,228	\$11,389	\$22,027	\$30,933	\$8,907
13,920	\$3.200	\$0.00	\$3,410	\$7,974	\$13,032	\$24,416	\$44,544	\$20,128
16,704	\$3.840	\$0.00	\$3,410	\$8,870	\$15,004	\$27,284	\$64,143	\$36,860

Breakeven and Net Present Value Analysis for Commercial Blackberry Production

Year	Total Yield per Acre	Wholesale Yield per Acre ¹		Culls (Lbs)	Equipment & Machinery Purchases ^{2,3}	Total Costs per Acre	Total Revenue per Acre	Net Cash Flow per Acre	Accumulated Cash Flow	Discount Factor	Present Value of Net Cash Flow
	(Lbs)	(Lbs)	(Flats)		(\$)	(\$/A)	(\$/A)	(\$/A)	(\$/A)	6%	(\$/A)
0	0	0	0	0	0	\$4,826	\$0	(\$4,826)	(\$4,826)	1.0000	(\$4,826)
1	0	0	0	0	4,568	\$11,753	\$0	(\$11,753)	(\$16,579)	0.9434	(\$11,088)
2	11,500	9,200	1,533	2,300	10,200	\$32,789	\$24,533	(\$8,256)	(\$24,835)	0.8900	(\$7,348)
3	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	(\$19,911)	0.8396	\$4,134
4	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	(\$14,987)	0.7921	\$3,900
5	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	(\$10,063)	0.7473	\$3,680
6	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	(\$5,138)	0.7050	\$3,472
7	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	(\$214)	0.6651	\$3,275
8	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	\$4,710	0.6274	\$3,089
9	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	\$9,634	0.5919	\$2,915
10	14,500	11,600	1,933	2,900	0	\$26,009	\$30,933	\$4,924	\$14,558	0.5584	\$2,750
Total					\$14,768	\$257,442	\$272,000	\$14,558			\$3,953

¹It was assumed that 80% of the total yield was marketable fruit.

² The value of 1/10th of the total cost of an air blast sprayer, a drip irrigation system, a 6" well, a fertilizer injector, a plastic layer/fumigator, and pumping equipment were included in the equipment purchases in the 2nd year.

³ The value of 1/10th of the total cost of a cooler/sorting room, a new cooling unit, and a used refrigerated truck were included in the equipment purchases in the 3rd year.

Total Accumulated Cash Flow	\$14,558
Payback Period	8 Years
Net Present Value	\$3,953