

**Cost of Producing, Harvesting and Marketing Primocane-Fruiting Raspberries
in North Carolina**
Estimated Costs for a Five Acre Commercial Operation
Jul-09

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This budget presents the estimated costs of producing and harvesting primocane-fruited raspberries 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 operation or expanding an existing operation. While the budget was developed for a representative 5 acre planting with drip irrigation, the cost estimates are presented on a per acre basis. It was also assumed that the management would be near optimal and that all currently recommended practices by the North Carolina Agricultural Extension Service would be followed.

For purposes of this study, it was assumed that all the machinery and equipment were purchased new at 2008 purchase prices. The machinery and equipment used in this budget reflect machinery components that can be used for other farming enterprises in addition to growing primocane-fruited raspberries on a typical diversified farm. Therefore, the hours of annual use and the resulting costs per hour reflect the equipment costs for a total farm business. The exception to this are the irrigation equipment, the fertilizer injector and the plastic layer/fumigator which were used solely for primocane-fruited raspberry production and the refrigeration equipment, which was needed to maintain berry quality during storage and transportation to the wholesale market.

Costs associated with Good Agricultural Practices (GAP) and third certification party, if required by your buyer, will vary from farm-to-farm. In addition the implementation costs will vary each year of the production cycle. We have included a line item in this budget titled "annual food safety costs" to account for part of these costs. However, the actual costs on your farm may differ from these estimates.

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 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 primocane-fruited raspberries. 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 PRIMOCANE-FRUITING RASPBERRIES
FOR THE COMMERCIAL MARKET IN NORTH CAROLINA

Five Acre Planting, Ten Year production Cycle

Marketing Assumptions:

Base Yield In Pounds (Years 3 through 10)	7,500 per acre
Marketable Raspberries	
Percent of Base Yield	80.0%
Pounds	6,000 per acre
6-oz cups	16,000 per acre
Flats	1,333 per acre
Culled Raspberries	
Percent of Base Yield	20.0%
Pounds	1,500 per acre
Market Prices	
Marketable Raspberries	
\$/Pound	\$3.11
\$/Flat	\$14.00
Culled Raspberries	
\$/Pound	\$0.00

Selected Input prices:

Fuel Prices	
Regular Gas	\$2.56 per gallon
Diesel Fuel	\$2.50 per gallon
Production Labor	
Base Wage	\$7.00 per hour
Base Wage plus Employer Cost	\$7.91 per hour
Harvest Labor Cost	
Picking Labor	\$3.50 per flat
Field Supervisor	\$0.50 per flat
Sorting Room Labor	\$0.25 per flat
Transporting Berries from Field	\$7.50 per hour
Packing Materials	
6-oz Clamshells	\$0.12 each
Flats	\$0.55 each

ESTIMATED PRIMOCANE-FRUITING RASPBERRY PRODUCTION COSTS PER ACRE: LAND PREPARATION

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
		----- \$/acre -----)				
February	Attend Grower Meeting		0.00	50.00	189.88	239.88
Total February		\$0.00	\$50.00	\$189.88	\$239.88	
April	Internet service (Monthly Fee)		0.00	6.00	0.00	6.00
	Sample Soil		0.00	10.00	3.96	13.96
	Nematode assay NCD&CS		0.00	2.00	3.96	5.96
Total April		\$0.00	\$18.00	\$7.91	\$25.91	
May	Internet service (Monthly Fee)		0.00	6.00	0.00	6.00
	Remove noxious weeds from field perimeter		0.00	0.00	189.88	189.88
	Plow Field		9.45	0.00	10.44	19.90
	Disc Field		5.44	0.00	5.22	10.66
	Order & Plant cover cro		2.65	14.00	3.32	19.97
	Apply Nutrients		2.65	0.00	3.32	5.97
	Lime		0.00	6.00	0.00	6.00
	Ammonium nitrate		0.00	10.00	0.00	10.00
Total May		\$20.18	\$36.00	\$212.19	\$268.38	
June - September	Internet service (Monthly Fee)		0.00	24.00	0.00	24.00
	Mow Cover Crop		10.33	0.00	11.87	22.20
Total June-September		\$10.33	\$24.00	\$11.87	\$46.20	
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
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	1,502.82	1.98	1,504.80
	Order trellis supplies		0.00	1,660.00	79.12	1,739.12
Total December		\$0.00	\$3,168.82	\$81.10	\$3,249.92	
Annual Administrative Costs + Taxes	Real Estate Taxes		0.00	16.00	0.00	16.00
	Management Fee		0.00	0.00	0.00	0.00
	Net Land Rent		0.00	100.00	0.00	100.00
	Miscellaneous		0.00	30.00	0.00	30.00
	Utilities, Legal, Accounting, Etc.		0.00	22.50	0.00	22.50
	Interest on Accumulating Investment		0.00	0.00	0.00	0.00
Total Annual Administrative Costs + Taxes		\$0.00	\$168.50	\$0.00	\$168.50	
Seasonal Costs	1/2 Ton Pick-up		21.04	0.00	18.99	40.02
	Operating Capital		0.00	357.80	0.00	357.80
Total Seasonal Costs		\$21.04	\$357.80	\$18.99	\$397.82	
TOTAL SITE-PREPARATION COSTS		\$51.55	\$3,835.12	\$521.94	\$4,408.61	

ESTIMATED PRIMOCANE-FRUITING RASPBERRY PRODUCTION COSTS PER ACRE: YEAR 1- PLANTING YEAR

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
		(\$/acre)				
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	50.00	189.88	239.88	
	Mark row (flags)	0.00	10.20	39.56	49.76	
Total February		\$0.00	\$66.20	\$229.44	\$295.64	
March	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Fumigate Strips (4356 linear feet)	75.10	0.00	28.48	103.59	
	Plastic film	0.00	144.00	0.00	144.00	
	Plant Raspberries	0.00	44.16	253.18	297.34	
	Seed permanent sod	4.45	14.00	79.12	97.57	
Total March		\$79.56	\$208.16	\$360.77	\$648.49	
April	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Order Pruning Equipment	0.00	0.00	15.82	15.82	
	Order & Replant	0.00	150.42	55.38	205.80	
	Mark post locations	0.00	0.00	39.56	39.56	
	Install Trellis	0.00	0.00	791.17	791.17	
	Apply fertilizer and irrigate	13.16	4.60	3.96	21.72	
	Mow alleys	4.13	0.00	4.75	8.88	
	Train	0.00	0.00	7.91	7.91	
	Spray Herbicide	3.26	31.50	3.96	38.72	
Total April		\$20.55	\$192.52	\$922.51	\$1,135.58	
May	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Hand Hoe	0.00	330.00	0.00	330.00	
	Mow alleys	4.13	0.00	4.75	8.88	
	Apply fertilizer and irrigate	13.16	4.60	3.96	21.72	
	Train/Prune	0.69	0.00	15.82	16.52	
Total May		\$17.99	\$340.60	\$24.53	\$383.11	
June	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Mow alleys	4.13	0.00	4.75	8.88	
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39	
	Train/Prune	0.69	0.00	15.82	16.52	
	Spray	3.26	6.15	3.96	13.37	
Total June		\$103.83	\$12.15	\$56.18	\$172.15	
July	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Mow alleys	8.26	0.00	9.49	17.76	
	Irrigate (2x/wk at 3 hrs/time)	119.68	0.00	39.56	159.24	
	Cover spray	0.00	0.00	0.00	0.00	
	Train/Prune	0.69	0.00	15.82	16.52	
Total July		\$128.64	\$6.00	\$64.88	\$199.51	
August	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Mow alleys	4.13	0.00	4.75	8.88	
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39	
	Cover spray	0.00	0.00	0.00	0.00	
	Train/Prune	0.69	0.00	15.82	16.52	
	Employee Harvest Training	0.00	0.00	253.18	253.18	
Total August		\$100.57	\$6.00	\$305.39	\$411.96	
September	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Apply Herbicide	3.26	21.00	3.96	28.22	
	Harvest	0.00	0.00	126.59	126.59	
	Mow alleys	82.63	0.00	94.94	177.57	
Total September		\$85.89	\$27.00	\$225.49	\$338.38	
October	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
Total October		\$0.00	\$6.00	\$0.00	\$6.00	
November-December	Internet service (Monthly Fee)	0.00	6.00	0.00	6.00	
	Mow rows to ground (Nov)	4.13	0.00	4.75	8.88	
Total November - December		\$4.13	\$6.00	\$4.75	\$14.88	
Annual Administrative Costs + Taxes	Real Estate Taxes	0.00	16.00	0.00	16.00	
	Management Fee	0.00	0.00	0.00	0.00	
	Net Land Rent	0.00	100.00	0.00	100.00	
	Miscellaneous	0.00	30.00	0.00	30.00	
	Utilities, Legal, Accounting, Etc.	0.00	22.50	0.00	22.50	
	Interest on Accumulating Investment	0.00	165.64	0.00	165.64	
Total Annual Administrative Costs + Taxes		\$0.00	\$334.14	\$0.00	\$334.14	
Seasonal Costs	1/2 Ton Pick-up	52.59	0.00	47.47	100.06	
	Operating Capital	0.00	73.31	0.00	73.31	
Total Seasonal Costs		\$52.59	\$73.31	\$47.47	\$173.37	
TOTAL YEAR 1 PLANTING COSTS		\$593.74	\$1,278.08	\$2,241.40	\$4,119.22	

ESTIMATED PRIMOCANE-FRUITING RASPBERRY PRODUCTION COSTS PER ACRE: YEAR 2 - FIRST HARVEST

Marketable Yield =		3,200	pounds, or	711	flats (12-6 oz cups)						
Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs					
							(\$/acre)				
January	Internet service	0.00	6.00	0.00	6.00						
	Order Harvest Supplies	0.00	0.00	15.82	15.82						
Total January		\$0.00	\$6.00	\$15.82	\$21.82						
February	Internet service	0.00	6.00	0.00	6.00						
	Attend Grower Meetings	0.00	50.00	189.88	239.88						
Total February		\$0.00	\$56.00	\$189.88	\$245.88						
March	Internet service	0.00	6.00	0.00	6.00						
	Set up irrigation system	0.87	0.00	78.12	79.99						
Total March		\$0.87	\$6.00	\$78.12	\$85.99						
April	Internet service	0.00	6.00	0.00	6.00						
	Apply fertilizer and irrigate	13.16	4.60	3.96	21.72						
	Apply Herbicide	3.26	31.50	3.96	38.72						
Total April		\$16.42	\$42.10	\$7.91	\$66.44						
May	Internet service	0.00	6.00	0.00	6.00						
	Mow Alleys	4.13	0.00	4.95	9.08						
	Irrigate/Fertilize	13.16	4.60	3.96	21.72						
	Irrigate (2x/wk at 3 hrs/time)	119.68	0.00	39.56	159.24						
	Train/Prune	2.77	0.00	63.29	66.07						
Total May		\$139.75	\$10.60	\$111.76	\$262.11						
June	Internet service	0.00	6.00	0.00	6.00						
	Mow alleys	4.13	0.00	4.95	9.08						
	Train/Prune	2.77	0.00	63.29	66.07						
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39						
	Mow alleys	4.13	0.00	4.95	9.08						
	Apply Herbicide	3.26	9.00	4.13	16.39						
Total June		\$110.04	\$15.00	\$108.97	\$234.01						
July	Internet service	0.00	6.00	0.00	6.00						
	Irrigate (2x/wk at 3 hrs/time)	119.68	0.00	39.56	159.24						
	Mow alleys	4.13	0.00	4.75	8.88						
	Apply Fungicide	21.11	0.00	21.42	42.53						
	Bird Deterrent Management	0.00	0.00	3.56	3.56						
	Apply Herbicide	3.26	16.00	3.96	23.22						
	Apply Fungicide	4.19	23.50	3.96	31.65						
	Apply Insecticide	4.19	177.88	3.96	186.03						
Total July		\$156.56	\$223.38	\$81.16	\$461.10						
August	Internet service	0.00	6.00	0.00	6.00						
	Mow alleys	4.13	0.00	4.75	8.88						
	Train/Prune	6.93	0.00	158.23	165.17						
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39						
	Apply Fungicide	4.19	140.00	3.96	148.15						
	Apply Insecticide	4.19	528.00	3.96	536.15						
Total August		\$115.19	\$674.00	\$455.72	\$1,244.91						
September	Internet service	0.00	6.00	0.00	6.00						
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39						
	Apply Fungicide	4.19	140.00	3.96	148.15						
	Apply Insecticide	4.19	240.00	3.96	248.15						
	Food Safety Costs	0.00	244.00	0.00	244.00						
	Total Yield/Acre (Pounds) =	4,000									
	Wholesale										
	Percent Production =	80%									
	Total Mkt Yield (Pounds)	3,200									
	Culls										
	Percent Production =	20%									
	Total Cullage (Pounds)	800									
	5 - Gallon Cull containers	0									
	Harvest - 2 Weeks										
	Harvested Yield (Pounds)	1,067									
	Containers										
	6 oz - clam shells	2,844	0.00	327.11	327.11						
	Flats (12 - 6 oz clam shells)	237	0.00	130.37	130.37						
	Harvest Labor (2 weeks)										
	Picking Labor	0.00	0.00	829.63	829.63						
	Field Supervisor	0.00	0.00	118.52	118.52						
	Sorting Room	0.00	0.00	59.26	59.26						
	Transporting Fruit from Field	8.87	0.00	59.40	68.27						
	Cooler/Cooling Unit Costs	268.00	0.00	0.00	268.00						
	Sorting/Storage Room Costs	19.67	0.00	0.00	19.67						
	Refrigerated Truck (2 hrs to load/unload)	73.86	0.00	25.32	99.17						
Total September		\$474.53	\$1,087.48	\$1,131.69	\$2,693.70						
October	Internet service	0.00	6.00	0.00	6.00						
	Apply Fungicide	4.19	16.00	3.96	24.15						
	Harvested Yield (Pounds)	2,133									
	Containers										
	6 oz - clam shells	5,689	0.00	654.22	654.22						
	Flats (12 - 6 oz clam shells)	474	0.00	260.74	260.74						
	Harvest Labor (2 weeks)										
	Picking Labor	0.00	0.00	1,659.26	1,659.26						
	Field Supervisor	0.00	0.00	237.04	237.04						
	Sorting Room	0.00	0.00	118.52	118.52						
	Transporting Fruit from Field	35.48	0.00	198.00	233.48						
	Cooler/Cooling Unit Costs	536.01	0.00	0.00	536.01						
	Sorting/Storage Room Costs	39.34	0.00	0.00	39.34						
	Refrigerated Truck (2 hrs to load/unload)	73.86	0.00	25.32	99.17						
Total October		\$688.88	\$936.96	\$2,242.09	\$3,867.93						
November - December	Internet service	0.00	6.00	0.00	6.00						
	Mow rows to ground	8.26	0.00	9.49	17.76						
	Apply Insecticide	4.19	1.08	3.96	9.23						
	Apply Herbicide	3.26	16.00	0.40	3.66						
Total November - December		\$15.71	\$23.08	\$13.85	\$52.64						
Annual Administrative Costs + Taxes											
	Real Estate Taxes	0.00	16.00	0.00	16.00						
	Management Fee	0.00	0.00	0.00	0.00						
	Net Land Rent	0.00	100.00	0.00	100.00						
	Miscellaneous	0.00	30.00	0.00	30.00						
	Utilities, Legal, Accounting, Etc.	0.00	22.50	0.00	22.50						
	Interest on Accumulating Investment	0.00	836.04	0.00	836.04						
Total Annual Administrative Costs + Taxes		\$0.00	\$1,004.54	\$0.00	\$1,004.54						
Seasonal Costs											
	1/2 Ton Pick-up	52.59	0.00	47.47	100.06						
	Operating Capital	0.00	45.29	0.00	45.29						
Total Seasonal Costs		\$52.59	\$45.29	\$47.47	\$145.35						
TOTAL ANNUAL COSTS - 2nd Year		\$1,770.54	\$4,130.43	\$4,485.45	\$10,386.42						

Notes:
 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 PRIMOCANE-FRUITING RASPBERRY PRODUCTION COSTS PER ACRE: YEAR 3 - 10

Marketable Yield = 6,000 pounds, or 1,333 flats (12-6 oz cups)

Month	Type of Operation	Equipment Costs	Materials Costs	Labor Costs	Total Costs	Your Costs
		(\$/acre)				
January	Internet service	0.00	6.00	0.00	6.00	
	Order Harvest Supplies	0.00	0.00	15.82	15.82	
Total January		\$0.00	\$6.00	\$15.82	\$21.82	
February	Internet service	0.00	6.00	0.00	6.00	
	Attend Grower Meetings	0.00	50.00	189.88	239.88	
Total February		\$0.00	\$56.00	\$189.88	\$245.88	
March	Internet service	0.00	6.00	0.00	6.00	
	Set up irrigation system	0.54	0.00	79.12	79.65	
Total March		\$0.54	\$6.00	\$79.12	\$85.65	
April	Internet service	0.00	6.00	0.00	6.00	
	Apply fertilizer and irrigate	13.16	4.60	3.96	21.72	
	Apply Herbicide	3.26	31.50	3.96	38.72	
Total April		\$16.42	\$42.10	\$7.91	\$66.44	
May	Internet service	0.00	6.00	0.00	6.00	
	Mow Alleys	4.13	0.00	4.95	9.08	
	Irrigate/Fertilize	13.16	4.60	3.96	21.72	
	Irrigate (2x/wk at 3 hrs/time)	119.68	0.00	39.56	159.24	
	Train/Prune	2.77	0.00	63.29	66.07	
Total May		\$139.75	\$10.60	\$111.76	\$262.11	
June	Internet service	0.00	6.00	0.00	6.00	
	Mow alleys	4.13	0.00	4.95	9.08	
	Train/Prune	2.77	0.00	63.29	66.07	
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39	
	Mow alleys	4.13	0.00	4.95	9.08	
	Apply Herbicide	3.26	9.00	4.13	16.39	
Total June		\$110.04	\$15.00	\$108.97	\$234.01	
July	Internet service	0.00	6.00	0.00	6.00	
	Irrigate (2x/wk at 3 hrs/time)	119.68	0.00	39.56	159.24	
	Mow alleys	4.13	0.00	4.75	8.88	
	Apply Fungicide	21.11	0.00	21.42	42.53	
	Bird Deterrent Management	0.00	0.00	3.56	3.56	
	Apply Herbicide	3.26	16.00	3.96	23.22	
	Apply Fungicide	4.19	23.50	3.96	31.65	
	Apply Insecticide	4.19	177.88	3.96	186.03	
Total July		\$156.56	\$223.38	\$81.16	\$461.10	
August	Internet service	0.00	6.00	0.00	6.00	
	Mow alleys	4.13	0.00	4.75	8.88	
	Train/Prune	6.93	0.00	158.23	165.17	
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39	
	Apply Fungicide	4.19	140.00	3.96	148.15	
	Apply Insecticide	4.19	528.00	3.96	536.15	
Total August		\$115.19	\$674.00	\$455.72	\$1,244.91	
September	Internet service	0.00	6.00	0.00	6.00	
	Irrigate (2x/wk at 3 hrs/time)	95.74	0.00	31.65	127.39	
	Apply Fungicide	4.19	140.00	3.96	148.15	
	Apply Insecticide	4.19	240.00	3.96	248.15	
	Food Safety Costs	0.00	244.00	0.00	244.00	
	Total Yield/Acre (Pounds) =	7,500				
	Wholesale					
	Percent Production =	80%				
	Total Mkt Yield (Pounds)	6,000				
	Culls					
	Percent Production =	20%				
	Total Cullage (Pounds)	1,500				
	5 - Gallon Cull containers	0				
	Harvest - 2 Weeks					
	Harvested Yield (Pounds)	2,000				
	Containers					
	6 oz - clam shells	5,333	0.00	613.33	0.00	613.33
	Flats (12 - 6 oz clam shells)	444	0.00	244.44	0.00	244.44
	Harvest Labor (2 weeks)					
	Picking Labor	0.00	0.00	1,555.56	1,555.56	
	Field Supervisor	0.00	0.00	222.22	222.22	
	Sorting Room	0.00	0.00	111.11	111.11	
	Transporting Fruit from Field	8.87	0.00	59.40	68.27	
	Cooler/Cooling Unit Costs	268.00	0.00	0.00	268.00	
	Spring/Storage Room Costs	19.67	0.00	0.00	19.67	
	Refrigerated Truck (2 hrs to load/unload)	73.86	0.00	25.32	99.17	
Total September		\$474.53	\$1,487.78	\$2,013.17	\$3,975.48	
October	Internet service	0.00	6.00	0.00	6.00	
	Apply Fungicide	4.19	16.00	3.96	24.15	
	Harvested Yield (Pounds)	4,000				
	Containers					
	6 oz - clam shells	10,667	0.00	1,226.67	0.00	1,226.67
	Flats (12 - 6 oz clam shells)	889	0.00	488.89	0.00	488.89
	Harvest Labor (2 weeks)					
	Picking Labor	0.00	0.00	3,111.11	3,111.11	
	Field Supervisor	0.00	0.00	444.44	444.44	

	Sorting Room	0.00	0.00	222.22	222.22	_____
	Transporting Fruit from Field	35.48	0.00	198.00	233.48	_____
	Cooler/Cooling Unit Costs	536.01	0.00	0.00	536.01	_____
	Spring/Storage Room Costs	39.34	0.00	0.00	39.34	_____
	Refrigerated Truck (2 hrs to load/unload)	73.86	0.00	25.32	99.17	_____
	Total October	\$688.88	\$1,737.56	\$4,005.05	\$6,431.49	_____
	November - December					
	Internet service	0.00	6.00	0.00	6.00	_____
	Mow rows to ground	8.26	0.00	9.49	17.76	_____
	Apply Insecticide	4.19	1.08	3.96	9.23	_____
	Capture 2 EC	0.00		0.00	1.08	_____
	Apply Herbicide	3.26	16.00	0.40	19.65	_____
	Total November - December	\$15.71	\$23.08	\$13.85	\$52.64	_____
		Equipment	Materials	Labor	Total	Your
Month	Type of Operation	Costs	Costs	Costs	Costs	Costs
	Annual Administrative Costs + Taxes					
	Real Estate Taxes	0.00	16.00	0.00	16.00	_____
	Management Fee	0.00	0.00	0.00	0.00	_____
	Net Land Rent	0.00	100.00	0.00	100.00	_____
	Miscellaneous	0.00	30.00	0.00	30.00	_____
	Utilities, Legal, Accounting, Etc.	0.00	22.50	0.00	22.50	_____
	Interest on Accumulating Investment	0.00	836.04	0.00	836.04	_____
	Total Annual Administrative Costs + Taxes	\$0.00	\$1,004.54	\$0.00	\$1,004.54	_____
	Seasonal Costs					
	1/2 Ton Pick-up	52.59	0.00	47.47	100.06	_____
	Operating Capital	0.00	45.29	0.00	45.29	_____
	Total Seasonal Costs	\$52.59	\$45.29	\$47.47	\$145.35	_____
	TOTAL ANNUAL COSTS - 3rd Year	\$1,770.20	\$5,331.32	\$7,129.89	\$14,231.42	_____

Notes:

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

Monthly Cost Estimates for Primocane-Fruiting Raspberry Production in North Carolina

Year & Month	Equipment Costs	Material Costs	Labor Costs	Total Costs	Your Costs
----- \$/acre -----					
Land Preparation					
January	0.00	0.00	0.00	\$0.00	_____
February	0.00	50.00	189.88	\$239.88	_____
March	0.00	0.00	0.00	\$0.00	_____
April	0.00	18.00	7.91	\$25.91	_____
May	20.18	36.00	212.19	\$268.38	_____
June	2.58	6.00	2.97	\$11.55	_____
July	2.58	6.00	2.97	\$11.55	_____
August	2.58	6.00	2.97	\$11.55	_____
September	2.58	6.00	2.97	\$11.55	_____
October	0.00	6.00	0.00	\$6.00	_____
November	0.00	6.00	0.00	\$6.00	_____
December	0.00	3,168.82	81.10	\$3,249.92	_____
Annual Charges	0.00	168.50	0.00	\$168.50	_____
Seasonal Charges	21.04	357.80	18.99	\$397.82	_____
Total Land Prep	\$51.55	\$3,835.12	\$521.94	\$4,408.61	_____
First Year					
January	0.00	6.00	0.00	\$6.00	_____
February	0.00	66.20	229.44	\$295.64	_____
March	79.56	208.16	360.77	\$648.49	_____
April	20.55	192.52	922.51	\$1,135.58	_____
May	17.99	340.60	24.53	\$383.11	_____
June	103.83	12.15	56.18	\$172.15	_____
July	128.64	6.00	64.88	\$199.51	_____
August	100.57	6.00	305.39	\$411.96	_____
September	85.89	27.00	225.49	\$338.38	_____
October	0.00	6.00	0.00	\$6.00	_____
November	2.07	3.00	2.37	\$7.44	_____
December	2.07	3.00	2.37	\$7.44	_____
Annual Charges	0.00	334.14	0.00	\$334.14	_____
Seasonal Charges	52.59	73.31	47.47	\$173.37	_____
Total First Year	\$593.74	\$1,284.08	\$2,241.40	\$4,119.22	_____
Second Year					
January	0.00	6.00	15.82	\$21.82	_____
February	0.00	56.00	189.88	\$245.88	_____
March	0.87	6.00	79.12	\$85.99	_____
April	16.42	42.10	7.91	\$66.44	_____
May	139.75	10.60	111.76	\$262.11	_____
June	110.04	15.00	108.97	\$234.01	_____
July	156.56	223.38	81.16	\$461.10	_____
August	115.19	674.00	455.72	\$1,244.91	_____
September	474.53	1,087.48	1,131.69	\$2,693.70	_____
October	688.88	936.96	2,242.09	\$3,867.93	_____
November	7.86	11.54	6.92	\$26.32	_____
December	7.86	11.54	6.92	\$26.32	_____
Annual Charges	0.00	1,004.54	0.00	\$1,004.54	_____
Seasonal Charges	52.59	45.29	47.47	\$145.35	_____
Total Second Year	\$1,770.54	\$4,130.43	\$4,485.45	\$10,386.42	_____

Monthly Cost Estimates for Primocane-Fruiting Raspberry Production in North Carolina

Year & Month	Equipment Costs	Material Costs	Labor Costs	Total Costs	Your Costs
----- \$/acre -----					
Years					
January	0.00	6.00	15.82	\$21.82	_____
February	0.00	56.00	189.88	\$245.88	_____
March	0.54	6.00	79.12	\$85.65	_____
April	16.42	42.10	7.91	\$66.44	_____
May	139.75	10.60	111.76	\$262.11	_____
June	110.04	15.00	108.97	\$234.01	_____
July	156.56	223.38	81.16	\$461.10	_____
August	115.19	674.00	455.72	\$1,244.91	_____
September	474.53	1,487.78	2,013.17	\$3,975.48	_____
October	688.88	1,737.56	4,005.05	\$6,431.49	_____
November	7.86	11.54	6.92	\$26.32	_____
December	7.86	11.54	6.92	\$26.32	_____
Annual Charges	0.00	1,004.54	0.00	\$1,004.54	_____
Seasonal Charges	52.59	45.29	47.47	\$145.35	_____
Total Third thur Tenth Years	\$1,770.20	\$5,331.32	\$7,129.89	\$14,231.42	_____

MONTHLY LABOR ESTIMATES FOR PRIMOCANE-FRUITING RASPBERRY PRODUCTION

Year & Month	Labor (Hours)	Your Estimate
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(Person
Hours per
Acre)

Land Preparation

January	0.00	_____
February	24.00	_____
March	0.00	_____
April	1.00	_____
May	26.82	_____
June	0.38	_____
July	0.38	_____
August	0.38	_____
September	0.38	_____
October	0.00	_____
November	0.00	_____
December	10.25	_____
Miscellanec	2.40	_____
Total Prep	65.97	_____

First Year

January	0.00	_____
February	29.00	_____
March	45.60	_____
April	116.60	_____
May	3.10	_____
June	7.10	_____
July	8.20	_____
August	6.60	_____
September	28.50	_____
October	0.00	_____
November	0.60	_____
December	0.00	_____
Miscellanec	6.00	_____

Total First 251.30

Year & Month	Labor (Hours)	Your Estimate
-------------------------	----------------------	----------------------

(Person
Hours per
Acre)

Second Year

January	2.00	_____
February	24.00	_____
March	10.00	_____
April	1.00	_____
May	14.10	_____
June	13.70	_____
July	10.07	_____
August	57.60	_____
September	44.92	_____
October	58.90	_____
November	1.10	_____
December	1.10	_____
Miscellanec	6.00	_____
Total Secon	244.49	_____

Third Year through Tenth Year

January	2.00	_____
February	24.00	_____
March	10.00	_____
April	1.00	_____
May	14.10	_____
June	13.70	_____
July	10.07	_____
August	57.60	_____
September	44.92	_____
October	58.90	_____
November	1.10	_____
December	1.10	_____
Miscellanec	6.00	_____

**Total Third
Year thru
Tenth Year 244.49**

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

**ESTIMATED RETURNS PER ACRE FOR COMMERCIAL PRIMOCANE-FRUITING
RASPBERRY PRODUCTION FOR VARYING YIELDS AND PRICES PER FLAT**

Wholesale Market (\$/flat)	Marketable Yield per Acre (Flats)				
	853	1,067	1,333	1,600	1,920
	\$8.96	(\$3,619)	(\$3,026)	(\$2,285)	(\$1,543)
\$11.20	(\$1,708)	(\$637)	\$702	\$2,041	\$3,647
\$14.00	\$682	\$2,350	\$4,435	\$6,521	\$9,023
\$16.80	\$3,071	\$5,337	\$8,169	\$11,001	\$14,399
\$20.16	\$5,938	\$8,921	\$12,649	\$16,377	\$20,851

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

**ESTIMATED RETURNS PER ACRE FOR COMMERCIAL PRIMOCANE-FRUITING
RASPBERRY PRODUCTION FOR VARYING YIELDS AND PRICES PER POUND**

Wholesale Market (\$/lb)	Marketable Yield per Acre (Pounds)				
	3,840	4,800	6,000	7,200	8,640
	\$1.99	(\$3,619)	(\$3,026)	(\$2,285)	(\$1,543)
\$2.49	(\$1,708)	(\$637)	\$702	\$2,041	\$3,647
\$3.11	\$682	\$2,350	\$4,435	\$6,521	\$9,023
\$3.73	\$3,071	\$5,337	\$8,169	\$11,001	\$14,399
\$4.48	\$5,938	\$8,921	\$12,649	\$16,377	\$20,851

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

ESTIMATED COSTS, GROSS REVENUES AND RETURNS PER ACRE FOR COMMERCIAL PRIMOCANE-FRUITING RASPBERRY PRODUCTION FOR VARYING YIELDS AND WHOLESALE PRICES PER FLAT

Yield/A (flats)	Wholesale Price	Cull Price	Annual Growing Costs			Total Costs	Gross Revenue	Returns
			Equip	Materials	Labor			
853	\$8.96	\$0.00	\$1,770	\$4,405	\$5,090	\$11,265	\$7,646	(\$3,619)
1,067	\$11.20	\$0.00	\$1,770	\$4,817	\$5,997	\$12,583	\$11,947	(\$637)
1,333	\$14.00	\$0.00	\$1,770	\$5,331	\$7,130	\$14,231	\$18,667	\$4,435
1,600	\$16.80	\$0.00	\$1,770	\$5,846	\$8,263	\$15,879	\$26,880	\$11,001
1,920	\$20.16	\$0.00	\$1,770	\$6,464	\$9,623	\$17,857	\$38,708	\$20,851

ESTIMATED COSTS, GROSS REVENUES AND RETURNS PER ACRE FOR COMMERCIAL PRIMOCANE-FRUITING RASPBERRY PRODUCTION FOR VARYING YIELDS AND WHOLESALE PRICES PER POUND

Yield/A (lbs.)	Wholesale Price	Cull Price	Annual Growing Costs			Total Costs	Gross Revenue	Returns
			Equip	Materials	Labor			
3,840	\$1.99	\$0.00	\$1,770	\$4,405	\$5,090	\$11,265	\$7,646	(\$3,619)
4,800	\$2.49	\$0.00	\$1,770	\$4,817	\$5,997	\$12,583	\$11,947	(\$637)
6,000	\$3.11	\$0.00	\$1,770	\$5,331	\$7,130	\$14,231	\$18,667	\$4,435
7,200	\$3.73	\$0.00	\$1,770	\$5,846	\$8,263	\$15,879	\$26,880	\$11,001
8,640	\$4.48	\$0.00	\$1,770	\$6,464	\$9,623	\$17,857	\$38,708	\$20,851

Payback Period and Net Present Value Analysis for Commercial Primocane-Fruiting Raspberry Production

Yr	Total Yield per Acre (Lbs)	Wholesale Yield per Acre		Culls per Acre (Lbs)	Annual Growing Costs per Acre			Equip & Machinery Bought \$	Total Costs per Acre	Gross Revenue per Acre	Net Cash Flow per Acre	Accumulat ed Cash Flow per Acre	Discount Factor (6%)*	Present Value of Net Cash Flow per Acre
		(Lbs)	(Flats)		Equip	Materials	Labor							
0	0	0	0	0	\$52	\$3,835	\$522	\$0	\$4,409	\$0	(\$4,409)	(\$4,409)	1.0000	(\$4,409)
1	0	0	0	0	\$594	\$1,284	\$2,241	\$3,533	\$7,652	\$0	(\$7,652)	(\$12,061)	0.9434	(\$7,219)
2	4,000	3,200	711	800	\$1,771	\$4,130	\$4,485	\$11,400	\$21,786	\$9,955	(\$11,831)	(\$23,892)	0.8900	(\$10,530)
3	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	(\$19,457)	0.8396	\$3,724
4	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	(\$15,022)	0.7921	\$3,513
5	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	(\$10,587)	0.7473	\$3,314
6	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	(\$6,151)	0.7050	\$3,127
7	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	(\$1,716)	0.6651	\$2,950
8	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	\$2,719	0.6274	\$2,783
9	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	\$7,154	0.5919	\$2,625
10	7,500	6,000	1,333	1,500	\$1,770	\$5,331	\$7,130	\$0	\$14,231	\$18,666	\$4,435	\$11,589	0.5584	\$2,477
	Total				\$16,577	\$51,900	\$64,288	\$14,933	\$147,699	\$159,287	\$11,589		0.0000	\$2,355

Total Accumulated Cash Flow **\$11,589**

Payback Period **7 Years**

Net Present Value **\$2,355**