

Guidelines For Estimating Saskatoon Berry Production Costs March 2008

The estimated saskatoon berry production costs in this publication have been prepared to assist you in developing your own production cost budgets.

The investment and cash input costs of growing saskatoon berries in Manitoba are substantial. Detailed budgeting and good financial planning are essential ingredients for success. The capital investment to establish and operate a 20 acre orchard may total in the range of \$66,000 to establish the orchard and an additional \$200,000 to purchase land, equipment and storage facilities. The establishment costs are incurred in the first 4 years and production doesn't begin until year 5. Saskatoons do not reach peak yield levels until 6-8 years after transplanting. However, a properly maintained orchard should maintain uniform yields for 20-30 years.

Commercial saskatoon production in Manitoba has been an important part of diversification in the province. Currently there are approximately 160 saskatoon growers in Manitoba whose orchards vary in size from 1 acre to 20 acres. The majority of the saskatoon orchards are harvested by hand for U-Pick sales and pre-picked direct farm sales; but mechanical harvesting for sales into processing has increased over the past few years.

Growers entering the industry need these basic requirements: (1) suitable land with adequate drainage and shelterbelts, (2) access to an adequate quantity and quality of water for irrigation, (3) financial resources that permit a significant level of investment on infrastructure and input costs, (4) the ability to apply management skills to the crop in a precisely timed manner, (5) the ability to determine market potential, and (6) the willingness to accept risk. It is advised that new growers assess their potential customer base and marketing opportunities prior to establishing a saskatoon orchard and that they should start small and expand their orchards over several years.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba Saskatoon Berry industry. Each situation may have higher or lower costs than those listed. Costs and yields on each farm differ due to soil type, climatic conditions and agronomic practices. Therefore, producers are encouraged to substitute their own figures in the attached budget to develop their own cost of production for saskatoon berry production. Interpretation and utilization of this information is the responsibility of the user. If you require assistance with developing your individual budget, please contact your local MAFRI GO Office.

Special thanks to MAFRI staff, Kelwin Management Consulting and the Prairie Fruit Growers Association for their assistance with developing this guide.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	
Capital costs amortized over 20 years													
2. Depreciation													
2.01 Machinery	\$14,280	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570
2.02 Storage	\$23,760	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940
Subtotal depreciation	\$38,040	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510
Subtotal - Operating Costs & Depreciation	\$106,657	\$14,084	\$14,084	\$14,084	\$14,084	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919
3. Investment													
3.01 Land	6,800	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700
3.02 Machinery	5,236	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309
3.03 Storage	8,712	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178
Subtotal investment	20,748	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187
Subtotal - Operating Costs, Depreciation & Investment Costs	\$127,405	\$19,271	\$19,271	\$19,271	\$19,271	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106
4. Labour	\$8,850	\$443	\$443	\$443	\$443	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764
Total Cost of Production	\$136,255	\$19,714	\$19,714	\$19,714	\$19,714	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870
		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
Cumulative costs		\$19,714	\$39,428	\$59,142	\$78,856	\$110,726	\$142,596	\$174,466	\$206,336	\$238,206	\$270,076	\$301,946	\$333,816
Cumulative production (lbs)		0	0	0	1,250	5,750	17,000	37,750	69,000	111,000	160,250	214,000	256,000
Costs/lb					\$63.08	\$19.26	\$8.39	\$4.62	\$2.99	\$2.15	\$1.69	\$1.41	\$1.30
Annual Net Income		-\$19,714	-\$19,714	-\$19,714	-\$17,214	-\$22,870	-\$9,370	\$9,630	\$30,630	\$52,130	\$66,630	\$75,630	\$52,130
Cumulative Net Income		-19713.99	-39427.98	-59141.97	-76355.96	-99225.95	-108595.9	-98965.91	-68335.89	-16205.88	50424.142	126054.16	178184.18

	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Capital costs amortized over 20 years								
2. Depreciation								
2.01 Machinery	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570	\$3,570
2.02 Storage	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940	\$5,940
Subtotal depreciation	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510	\$9,510
<hr/>								
Subtotal - Operating Costs & Depreciation	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919	\$17,919
<hr/>								
3. Investment								
3.01 Land	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700	\$1,700
3.02 Machinery	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309	\$1,309
3.03 Storage	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178	\$2,178
Subtotal investment	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187	\$5,187
<hr/>								
Subtotal - Operating Costs, Depreciation & Investment Costs	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106	\$23,106
<hr/>								
4. Labour	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764	\$8,764
<hr/>								
Total Cost of Production	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870	\$31,870
	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Cumulative costs	\$365,686	\$397,556	\$429,426	\$461,296	\$493,166	\$525,036	\$556,906	\$588,776
Cumulative production (lbs)	300,250	330,500	365,750	391,500	426,750	452,500	487,750	527,500
Costs/lb	\$1.22	\$1.20	\$1.17	\$1.18	\$1.16	\$1.16	\$1.14	\$1.12
Annual Net Income	\$56,630	\$28,630	\$38,630	\$19,630	\$38,630	\$19,630	\$38,630	\$47,630
Cumulative Net Income	234814.2	263444.21	302074.2	321704.25	360334.27	379964.28	418594.3	466224.32

Saskatoon Berry Orchard - Estimated Annual Cash Flow Statements

	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
Capital Costs:										
Yardsite - 5 acres @ \$2,500	\$12,500									
Land - 20 acres at \$1,500/acre	\$30,000									
Production Equipment	\$56,500									
Harvester & Cleaning/Sorting Equipment				\$42,000						
Freezers & Storage				\$60,000						
Total Capital Costs	\$99,000	\$0	\$0	\$102,000	\$0	\$0	\$0	\$0	\$0	\$0
Orchard Establishment Costs		\$17,154	\$17,154	\$17,154	\$17,154	\$0	\$0	\$0	\$0	\$0
Annual production costs						\$4,978	\$4,978	\$4,978	\$4,978	\$4,978
Subtotal - Cash Costs	\$99,000	\$17,154	\$17,154	\$119,154	\$17,154	\$4,978	\$4,978	\$4,978	\$4,978	\$4,978
Revenue:	\$0	\$0	\$0	\$0	\$2,500	\$9,000	\$22,500	\$41,500	\$62,500	\$84,000
Annual (Shortfall) or Surplus	-\$99,000	-\$17,154	-\$17,154	-\$119,154	-\$14,654	\$4,022	\$17,522	\$36,522	\$57,522	\$79,022
Cummulative (Shortfall) or Surplus	-\$99,000	-\$116,154	-\$133,309	-\$252,463	-\$267,117	-\$263,096	-\$245,574	-\$209,053	-\$151,531	-\$72,509
Financing (equity or debt) required	\$99,000	\$116,154	\$133,309	\$252,463	\$267,117	\$263,096	\$245,574	\$209,053	\$151,531	\$72,509

Summary - Saskatoon Berry Orchard Estimated Cost of Production

	Establishment ¹ Cost \$/acre Years 1-4	Establishment ¹ Cost \$/acre Amortized Over Years 1-20	Incremental Production Cost \$/acre Years 5-20	Subtotal Annual		Your Cost
				Establishment & Production Costs per Acre Years 5-20	Annual Cost/lb	
1. Operating Costs						
1.01 Plant Costs and Grass Seed ¹	\$1,870.00	\$93.50	N/A	\$93.50	\$0.0603	_____
1.02 Fertilizer	\$100.00	\$5.00	\$60.85	\$65.85	\$0.0320	_____
1.03 Herbicides	\$28.00	\$1.40	\$6.00	\$7.40	\$0.0037	_____
1.04 Insecticides	\$90.00	\$4.50	\$30.00	\$34.50	\$0.0171	_____
1.05 Fungicides	\$69.00	\$3.45	\$58.50	\$61.95	\$0.0299	_____
1.06 Field Fuel Costs	\$38.44	\$1.92	\$22.18	\$24.10	\$0.0117	_____
1.07 Irrigation Costs	\$80.00	\$4.00	\$10.00	\$14.00	\$0.0073	_____
1.08 Custom Costs	\$15.00	\$0.75	\$0.00	\$0.75	\$0.0005	_____
1.09 Repair & Maintenance	\$565.50	\$28.28	\$14.14	\$42.42	\$0.0249	_____
1.10 Miscellaneous	\$315.00	\$15.75	\$0.00	\$15.75	\$0.0102	_____
1.11 Land Taxes	<u>\$160.00</u>	<u>\$8.00</u>	<u>\$40.00</u>	<u>\$48.00</u>	<u>\$0.0241</u>	_____
Subtotal Operating	\$3,330.94	\$166.55	\$241.67	\$408.22	\$0.2216	_____
1.12 Interest on Operating	\$99.93	\$5.00	\$7.25	\$12.25	\$0.0066	_____
Total Operating Costs	\$3,430.87	\$171.54	\$248.92	\$420.46	\$0.2282	_____
2. Depreciation						
2.01 Machinery	\$714.00	\$178.50	\$0.00	\$178.50	\$0.1151	_____
2.02 Storage	<u>\$1,188.00</u>	<u>\$297.00</u>	<u>\$0.00</u>	<u>\$297.00</u>	<u>\$0.1914</u>	_____
Subtotal depreciation	\$1,902.00	\$475.50	\$0.00	\$475.50	\$0.3065	_____
Subtotal - Op. Costs & Depreciation	\$5,332.87	\$266.64	\$248.92	\$515.56	\$0.53	_____
3. Investment						
3.01 Land	\$340.00	\$85.00	\$0.00	\$85.00	\$0.0548	_____
3.02 Machinery	\$261.80	\$65.45	\$0.00	\$65.45	\$0.0422	_____
3.03 Storage	<u>\$435.60</u>	<u>\$108.90</u>	<u>\$0.00</u>	<u>\$108.90</u>	<u>\$0.0702</u>	_____
Subtotal investment	\$1,037.40	\$259.35	\$0.00	\$259.35	\$0.1672	_____
Subtotal - Op. Costs, Deprec. & Invest.	\$6,370.27	\$525.99	\$248.92	\$774.91	\$0.70	_____
4. Labour	\$442.50	\$22.13	\$416.06	\$438.19	\$0.2109	_____
Total Cost of Production	\$6,812.77	\$548.12	\$664.98	\$1,213.10	\$0.91	_____

1. The cost of establishing the crop of \$6,812.77 per acre, over a four year period, was spread over 20 years at \$548.12 per year.

Disclaimer: This budget is only a guide and is not intended as an in depth study of the cost of production of the Manitoba Saskatoon Berry industry.

Saskatoon Berry Orchard Assumptions

Number of acres in production	20
Market Value - orchard (\$/acre)	\$1,500
Market Value - yardsite (\$/acre)	\$2,500
Land Taxes - orchard (\$/acre)	\$15.00
Land Taxes - yardsite (\$/acre)	\$100.00
Fuel Price (Diesel \$/litre)	\$0.82
Interest on Operating	6.0%
Interest on Investment	4.0%

Year	Acres	Orchard A ¹	Orchard B ¹	Orchard C ¹	Orchard D ¹	Orchard A	Orchard B	Orchard C	Orchard D	Total
		5	5	5	5	production per acre (lb)				prod'n (lb)
1		planted				0	0	0	0	0
2		2nd year establ.	planted			0	0	0	0	0
3		3rd year establ.	2nd year establ.	planted		0	0	0	0	0
4		1st year harvest	3rd year establ.	2nd year establ.	planted	250	0	0	0	1,250
5		2nd year harvest	1st year harvest	3rd year establ.	2nd year establ.	650	250	0	0	4,500
6		3rd year harvest	2nd year harvest	1st year harvest	3rd year establ.	1,350	650	250	0	11,250
7		4th year harvest	3rd year harvest	2nd year harvest	1st year harvest	1,900	1,350	650	250	20,750
8		5th year harvest	4th year harvest	3rd year harvest	2nd year harvest	2,350	1,900	1,350	650	31,250
9		6th year harvest	5th year harvest	4th year harvest	3rd year harvest	2,800	2,350	1,900	1,350	42,000
10		7th year harvest	6th year harvest	5th year harvest	4th year harvest	2,800	2,800	2,350	1,900	49,250
11		8th year harvest	7th year harvest	6th year harvest	5th year harvest	2,800	2,800	2,800	2,350	53,750
12		renovated-no prod'n	8th year harvest	7th year harvest	6th year harvest	0	2,800	2,800	2,800	42,000
13		1st year harvest	9th year harvest	8th year harvest	7th year harvest	450	2,800	2,800	2,800	44,250
14		2nd year harvest	renovated-no prod'n	9th year harvest	8th year harvest	1,000	0	2,800	2,800	30,250
15		3rd year harvest	1st year harvest	10th year harvest	9th year harvest	1,900	450	2,800	2,800	35,250
16		4th year harvest	2nd year harvest	renovated-no prod'n	10th year harvest	2,800	1,000	0	2,800	25,750
17		5th year harvest	3rd year harvest	1st year harvest	11th year harvest	2,800	1,900	450	2,800	35,250
18		6th year harvest	4th year harvest	2nd year harvest	renovated-no prod'n	2,800	2,800	1,000	0	25,750
19		7th year harvest	5th year harvest	3rd year harvest	1st year harvest	2,800	2,800	1,900	450	35,250
20		8th year harvest	6th year harvest	4th year harvest	2nd year harvest	2,800	2,800	2,800	1,000	39,750
21		9th year harvest	7th year harvest	5th year harvest	3rd year harvest	2,800	2,800	2,800	1,900	47,000
22		renovated-no prod'n	8th year harvest		4th year harvest	0	2,800	2,800	2,800	37,500
23		no production	9th year harvest	7th year harvest	5th year harvest	0	2,800	2,800	2,800	42,000
24		1st year harvest	renovated-no prod'n	8th year harvest	6th year harvest	450	0	2,800	2,800	44,250

Total Production (lb) - Years 4 to 20 527,500
Average production per acre (lb) - years 4 to 20 1,551

<u>Capital Costs</u>	<u>Market Value</u>	<u>Allocated % Saskatoon</u>	<u>Allocated \$ Saskatoon</u>	<u>Useful Life</u>	<u>Salvage Value</u>
Land Value					
Yardsite Cost	\$12,500	100%	\$12,500		
Land Cost	\$30,000	100%	\$30,000		
Machinery Costs					
Tractor 40 hp	\$20,000	100%	\$20,000	15	10%
Mech. Transplanter	\$0	100%	\$0	15	10%
Sprayer (used)	\$5,000	100%	\$5,000	15	10%
Mower	\$2,500	100%	\$2,500	15	10%
Cultivator	\$0	90%	\$0	15	10%
Harvester	\$30,000	100%	\$30,000	15	10%
Pruning Equipment	\$2,000	100%	\$2,000	15	10%
Total	\$59,500		\$59,500	15	10%
Other Costs					
Storage Shed	\$20,000	100%	\$20,000	15	10%
Quick Freeze Unit	\$25,000	100%	\$25,000	15	10%
Holding Freezer	\$15,000	100%	\$15,000	15	10%
Sorting Table & Sizer	\$12,000	100%	\$12,000	15	10%
Irrigation Equipment	\$27,000	100%	\$27,000	15	10%
Total	\$99,000		\$99,000	15	10%
Total Investment	\$201,000		\$188,500		
Average Investment per acre	Land		\$2,125 \$/acre		
	Machinery		\$2,975 \$/acre		
	Other		\$4,950 \$/acre		
	Total		\$9,425 \$/acre		

Note 1: It is assumed that the 20 acre orchard is planted over 4 successive years. To accommodate this staggered planting schedule, the orchard is divided into 4 orchards (Orchard A, B, C, & D) for our purposes.

Saskatoon Berry Cost of Production Worksheet Establishment Practices and Estimated Costs

Plant and Seed Costs

Saskatoon plants		
Planting rate plants/acre		880 plants/ac
Plant Cost		\$2.00 \$/ plant
Grass Seed		\$110.00 per acre
Seeding rate/acre		40 lbs./acre
Seed cost		\$2.75 \$/lb.

Fertilizer

	<u>Est 1</u>	<u>Est 2</u>	<u>Est 3</u>	<u>Est 4</u>
	-----\$/acre-----			
Establishment Years	\$25.00	\$25.00	\$25.00	\$25.00
Applicator rental		\$0.00		

Herbicides

	<u>Est 1</u>	<u>Est 2</u>	<u>Est 3</u>	<u>Est 4</u>
	-----\$/acre-----			
Pre Plant & Estab. Yrs.	\$10.00	\$6.00	\$6.00	\$6.00

Insecticides

	<u>Est 1</u>	<u>Est 2</u>	<u>Est 3</u>	<u>Est 4</u>
	-----\$/acre-----			
Pre Plant & Estab. Yrs.	\$0.00	\$45.00	\$45.00	0

Fungicides

	<u>Est 1</u>	<u>Est 2</u>	<u>Est 3</u>	<u>Est 4</u>
	-----\$/acre-----			
Pre Plant & Estab. Yrs.	\$0.00	\$0.00	\$23.00	\$46.00

Field Operations:

<u>Pre Transplant</u>	<u>Times</u> <u>Over</u>	<u>Width</u> <u>Feet</u>	<u>Speed</u> <u>MPH</u>	<u>Tractor</u> <u>HP</u>	
Cultivate	2	18	5	0	Custom

<u>Fall Transplanting</u>	<u>Times</u> <u>Over</u>	<u>Width</u> <u>Feet</u>	<u>Speed</u> <u>MPH</u>	<u>Tractor</u> <u>HP</u>
Transplanting	1	5	1	40
Mowing	9	6	5	40
Spray	0	25	4	40
Mulch application	1	4	2	40

Irrigation Fuel Costs

Inches applied	<u>Plant</u> 2
Hours per acre for 1" of water	2.0 times 4
Hourly pumping costs	\$5.00

Saskatoon Berry Cost of Production Worksheet Establishment Practices and Estimated Costs

Custom & Rental Operations

Custom 1	transplanter	\$100.00
Custom 2	Mulch layer	\$200.00

Repairs & Maintenance

% rate of investment	1.5%
----------------------	-------------

Miscellaneous

Plant replacement cost	\$150.00	second year only
Plastic Mulch	0.66	rolls/acre only in 1st year.
	\$250.00	\$/roll

Labour

	<u>Est 1</u>	<u>Est 2</u>	<u>Est 3</u>	<u>Est 4</u>	
	<u>Hours/acre</u>				
Weed Control	2.0	0.5	0.5	0.5	3.5
Pest control	0.0	2	2	3	7.0
Mowing	0.0	1.5	1.5	1.5	4.5
Irrigation	4.0	3.0	3.0	3.0	13.0
Mulch application	10.0	0.0	0.0	0.0	10.0
Field Operations	6.3	0.0	0.0	0.0	6.3
Total Labour Hours	22.3	7.0	7.0	8.0	44.3
Labour Rate per hour		\$10.00			

**Saskatoon Berry Cost of Production Worksheet
Estimated Establishment Costs**

1. Operating Costs

Your Cost

1.01 Seed & Plants

Plants		880	plants/acre	
	x	\$2.00	<u>\$/ 1,000 plants</u>	_____
	=	\$1,760.00	\$/acre	_____
Grass Seed		\$40.00	lbs/acre	_____
	x	\$2.75	<u>\$/lb</u>	_____
		\$110.00	\$/acre	_____
Total Plant and Seed Cost		\$1,870.00	\$/acre	_____

1.02 Fertilizer

Establish Year 1		\$25.00	\$/acre	_____
Establish Year 2	+	\$25.00	\$/acre	_____
Establish Year 3	+	\$25.00	\$/acre	_____
Establish Year 4	+	\$25.00	\$/acre	_____
Total	=	\$100.00	\$/acre	_____

1.03 Herbicides

Establish Year 1		\$10.00	Non-selective herbicide	_____
Establish Year 2	+	\$6.00	Non-selective herbicide	_____
Establish Year 3	+	\$6.00	other	_____
Establish Year 4		\$6.00	other	_____
	=	\$28.00	\$/acre	_____

1.04 Insecticides

Establish Year 1		\$0.00	\$/acre	_____
Establish Year 2	+	\$45.00	\$/acre	_____
Establish Year 3	+	\$45.00	\$/acre	_____
Establish Year 4		\$0.00	\$/acre	_____
	=	\$90.00	\$/acre	_____

1.05 Fungicides

Establish Year 1		\$0.00	spray 1	_____
Establish Year 2	+	\$0.00	spray 2	_____
Establish Year 3	+	\$23.00	spray 3	_____
Establish Year 4		\$46.00		_____
	=	\$69.00	\$/acre	_____

**Saskatoon Berry Cost of Production Worksheet
Estimated Establishment Costs**

1.06 Field Fuel Costs

Your Cost

Field Operations

<u>Operation</u>	<u>Times Over</u>	<u>Width feet</u>	<u>Speed mph</u>	<u>Fuel \$/ac.</u>	
Cultivate	2	18	5	\$0.00	_____
Total	custom hired			\$0.00	_____

Field Operations

Planting

<u>Operation</u>	<u>Times Over</u>	<u>Width feet</u>	<u>Speed mph</u>	<u>Fuel \$/ac.</u>	
Transplanting	1	5	1	\$12.30	_____
Mowing	9	6	5	\$18.45	_____
Spray	0	25	4	\$0.00	_____
Mulch application	1	4	2	<u>\$7.69</u>	_____
Total				\$38.44	_____

Total Field Operation Fuel Costs **\$38.44** _____

1.07 Irrigation Fuel Costs

Establish Years 1-4	2	inches of water applied		_____
x	4	times during the establishment period		_____
x	2	hours/acre for 1" of water		_____
<u>x</u>	<u>\$5.00</u>	<u>rate/hour</u>		_____
=	\$80.00	\$/acre		_____

1.08 Custom Costs

Transplanter	\$100.00	total cost		_____
Other	\$200.00	total cost		_____
<u>∴</u>	<u>20</u>	<u>acres</u>		_____
=	\$15.00	\$/acre		_____

1.09 Repairs and Maintenance

	1.5%	percentage rate		_____
x	\$9,425	investment/acre		_____
<u>x</u>	<u>4</u>	<u>years</u>		_____
=	\$565.50	\$/acre		_____

1.10 Miscellaneous

Plant replacement	\$150.00	\$/acre		_____
Plastic Mulch	0.66	bales/acre		_____
<u>x</u>	<u>\$250.00</u>	<u>\$/bale</u>		_____
=	\$165.00	\$/acre		_____

Total Misc. Cost \$315.00 **\$/acre**

**Saskatoon Berry Cost of Production Worksheet
Estimated Establishment Costs**

Your Cost

1.11 Land Taxes

	\$40.00	\$/acre
±	4	years
=	\$160.00	\$/acre

1.12 Interest on Operating

	\$3,330.94	subtotal operating
÷	2	average
×	6.0%	interest rate
=	\$99.93	\$/acre

**Original Value - Salvage Value
Useful Life**

2. Depreciation

2.01 Machinery

	\$2,975.00	cost/acre
-	\$297.50	salvage value
÷	15	useful life
=	\$178.50	\$/acre
x	4	years
	\$714.00	\$/acre

2.02 Other Equipment

	\$4,950.00	cost/acre
-	\$495.00	salvage value
÷	15	useful life
=	\$297.00	\$/acre
x	4	years
	\$1,188.00	\$/acre

3. Investment

**Original Value + Salvage Value x Investment Rate
2**

3.01 Land

	\$2,125.00	cost/acre
x	4	years
×	4.0%	% investment rate
=	\$340.00	\$/acre

3.02 Machinery

	\$2,975.00	cost/acre
+	\$297.50	salvage value
÷	2	average
x	4	years
×	4.0%	% investment rate
=	\$261.80	\$/acre

**Saskatoon Berry Cost of Production Worksheet
Estimated Establishment Costs**

Your Cost

3.03 Other Equipment

	\$4,950.00	cost/acre	
+	\$495.00	salvage value	
÷	2	average	
x	4	years	
<u>x</u>	<u>4.0%</u>	<u>% investment rate</u>	
=	\$435.60	\$ /acre	

4. Labour

	3.5	hrs/ac weed control	
+	7.0	hrs/ac pest control	
+	4.5	hrs/ac mowing	
+	13.0	hrs/ac irrigation	
+	10.0	hrs/ac mulching	
+	6.3	hrs/ac field operations	
<u>x</u>	<u>\$10.00</u>	<u>\$/hour</u>	
=	\$442.50	\$ /acre	

**Saskatoon Berry Cost of Production Worksheet
Production Year Practices and Estimated Costs**

1.08 Custom & Rental Operations

none

1.09 Repairs & Maintenance

% rate of investment **3.0%**

1.10 Miscellaneous

Utilities **\$0.00**

Labour Costs (\$/acre)

Rate per hour **\$10.00**

Hours/acre

Weed Control	1.0
Pest control	3.0
Mowing	1.5
Irrigation	3.0
Pruning	20.0
Harvesting	4.5
Initial processing	5.0
Field Operations	<u>3.6</u>
Total Labour Hours	41.6

Saskatoon Berry Cost of Production Worksheet
Production Year Estimated Costs

1. Operating Costs

Your Cost

1.02 Fertilizer

Nitrogen

		25	lbs/acre cropping
x	<u>\$0.600</u>		<u>cost/lb cropping</u>
=	\$15.00		\$ /acre

P₂O₅

		50	lbs/acre cropping
x	<u>\$0.620</u>		<u>cost/lb cropping</u>
=	\$31.00		\$ /acre

K₂O

		45	lbs/acre cropping
x	<u>\$0.330</u>		<u>cost/lb cropping</u>
=	\$14.85		\$ /acre

Sulfur

		0	lbs/acre cropping
x	<u>\$0.320</u>		<u>cost/lb cropping</u>
=	\$0.00		\$ /acre

Applicator rental = \$0.00 \$ /acre

Annual Cost = \$60.85 \$ /acre

1.03 Herbicides

		\$6.00	\$ /acre glyphosate
+	<u>\$0.00</u>		
=	\$6.00		\$ /acre

1.04 Insecticides

		\$15.00	\$ /acre Various Bugs
		<u>2</u>	<u>number of sprayings</u>
=	\$30.00		\$ /acre

1.05 Fungicide

		\$23.00	\$ /acre Topas 250EC
		\$16.00	\$ /acre Kumulus DF
=	\$19.50		\$ /acre (average)
		<u>3</u>	<u>number of sprayings</u>
	\$58.50		

Saskatoon Berry Cost of Production Worksheet
Production Year Estimated Costs

1.06 Field Fuel Costs

<u>Operation</u>	<u>Times Over</u>	<u>Width feet</u>	<u>Speed mph</u>	<u>Fuel \$/ac.</u>	<u>Your Cost</u>
Spray	5	25	4	\$3.08	_____
Mowing	6	6	4	\$15.38	_____
Harvesting	2	16.5	2	<u>\$3.73</u>	_____
				\$22.18	_____

1.07 Irrigation Costs

	1	inches of water applied	_____
x	2	hours/acre for 1" of water	_____
x	<u>\$5.00</u>	<u>rate/hour</u>	_____
=	\$10.00	\$/acre	_____

1.08 Custom Operations

	\$0.00	\$/acre	_____
÷	<u>20</u>	<u>acres</u>	_____
=	\$0.00	\$/acre	_____

1.09 Repair & Maintenance

	3.0%	percentage rate	_____
x	<u>\$471</u>	<u>investment/acre</u>	_____
=	\$14.14	\$/acre	_____

1.10 Miscellaneous

	\$0.00	\$/acre	_____
÷	<u>20</u>	<u>acres</u>	_____
=	\$0.00	\$/acre	_____

1.11 Land Taxes

=	\$15.00	\$/acre	_____
---	----------------	----------------	-------

1.12 Interest on Operating

	\$241.67	subtotal operating	_____
÷	2	average	_____
x	<u>6.0%</u>	<u>interest rate</u>	_____
=	\$7.25	\$/acre	_____

Saskatoon Berry Cost of Production Worksheet
Production Year Estimated Costs

2. Depreciation	<u>Original Value - Salvage Value</u>		<u>Your Cost</u>
	Useful Life		
2.01 Machinery			
	\$2,975.00	cost/acre	_____
-	\$297.50	salvage value	_____
÷	15	useful life	_____
=	\$178.50	\$ /acre	_____
2.02 Other Equipment			
	\$4,950.00	cost/acre	_____
-	\$495.00	salvage value	_____
÷	15	useful life	_____
=	\$297.00	\$ /acre	_____
3. Investment	<u>Original Value + Salvage Value</u> x Investment Rate		
	2		
3.01 Land			
	\$1,500.00	cost/acre	_____
x	4.0%	% investment rate	_____
=	\$60.00	\$ /acre	_____
3.02 Machinery			
	\$2,975.00	cost/acre	_____
+	\$297.50	salvage value	_____
÷	2	average	_____
x	4.0%	% investment rate	_____
=	\$65.45	\$ /acre	_____
3.03 Other Equipment			
	\$4,950.00	cost/acre	_____
+	\$495.00	salvage value	_____
÷	2	average	_____
x	4.0%	% investment rate	_____
=	\$108.90	\$ /acre	_____

Saskatoon Berry Cost of Production Worksheet
Production Year Estimated Costs

Page 4

Your Cost

4. Labour

	1.0	hrs/ac weed control	_____
+	3.0	hrs/ac pest control	_____
+	1.5	hrs/ac mowing	_____
+	3.0	hrs/ac irrigation	_____
	20.0	hrs/ac pruning	_____
	4.5	hrs/ac harvesting	_____
	5.0	hrs/ac initial processing	_____
+	3.6	hrs/ac field operations	_____
<u>x</u>	<u>\$10.00</u>	<u>\$/hour</u>	_____
=	\$416.06	\$/acre	_____

For more information contact your local Manitoba Agriculture, Food and Rural Initiatives office.

Prepared by:
Kelwin Management Consulting