

Switchgrass  
Perennial - Med Input

	Qty	Unit	Price /Unit	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10	Total	Present Value	Annualized PV (compare to corn yearly cost)
<b>REVENUE SOURCE</b>																
Biomass Yield	4	ton		0	2.68	4	4	4	4	4	4	4	4	34.68		
Revenue Stream			\$ 60.00	\$0	\$161	\$240	\$240	\$240	\$240	\$240	\$240	\$240	\$240	\$2,081	\$1,553	\$201
<b>SELECT CASH EXPENSES</b>																
Seed																
Cave-in-Rock	5	PLS lb	\$11.33	\$57	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$57	\$54	\$7
<b>Fertilizer</b>																
Nitrogen	60	lbs	\$ 0.46	\$0	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$28	\$248	\$187	\$24
P <sub>2</sub> O <sub>5</sub>	3.15	lbs/ton	\$ 0.62	\$16	\$5	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$83	\$65	\$8
K <sub>2</sub> O	13.25	lbs/ton	\$ 0.63	\$32	\$22	\$33	\$33	\$33	\$33	\$33	\$33	\$33	\$33	\$321	\$246	\$32
<b>Pest Control</b>																
WSG spray	1	acre	\$ 13.74	\$27	\$14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$41	\$39	\$5
<b>Machine Costs</b>																
Chisel Plow	1	acre	\$ 14.17	\$14	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$14	\$13	\$2
Soil Finish	1	acre	\$ 11.10	\$11	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11	\$11	\$1
Grass Seeder, broadcast	1	acre	\$ 9.00	\$9	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$9	\$9	\$1
Sprayer	1	acre	\$ 5.60	\$6	\$6	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$11	\$10	\$1
<b>Post-harvest</b>																
Mower-condition (16')	1	acre	\$ 13.50	\$0	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$14	\$122	\$91	\$12
Raking - Hay 9ft	1	acre	\$ 6.00	\$0	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$6	\$54	\$41	\$5
Baling - lg round	5.33	1500# bale	\$ 8.35	\$0	\$30	\$45	\$45	\$45	\$45	\$45	\$45	\$45	\$45	\$386	\$288	\$37
Bale-to-storage	5.33	1500# bale	\$ 3.10	\$0	\$11	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$17	\$143	\$107	\$14
Trucking	4	ton	\$ 3.00	\$0	\$8	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$12	\$104	\$78	\$10
Marketing	4	ton	4%	\$0	\$6	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$8	\$73	\$54	\$7
<b>TOTAL CASH EXPENSES</b>				\$171	\$149	\$170	\$170	\$170	\$170	\$170	\$170	\$170	\$170	\$1,678	\$1,293	\$167
<b>REV ABOVE EXPENSES</b>				-\$171	\$12	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$70	\$403	\$260	\$34
Labor <sup>1</sup>		hours/acre		0.44	0.51	3.83	3.83	3.83	3.83	3.83	3.83	3.83	3.83			

1. Assumes no harvest in first year and limited yield in second year. See Biomass yield (line 6) for estimated yields each year.

Calculation Assumptions:

Interest Rate	5%
Years of Production	10
(1+i) <sup>n</sup> - 1	0.63
i(1+i) <sup>n</sup>	0.08



Extension Bulletin E-3084, Profitability of Converting to Biofuel Crops  
Web: <http://bioenergy.msu.edu/economics/index.shtml>