

Economic Analysis of Cinnamon Sticks as a fuel wood

Year	1	2	3	4	5	6	7	8	9	10	
Cost Streams (Rs.)											
Labour Cost	460,000.00	162,500.00	175,000.00	182,500.00	200,000.00	200,000.00	200,000.00	200,000.00	200,000.00	200,000.00	
Land preparation, Planting, and others											
Planting Materials	81,000.00	16,200.00	4,050.00	1,013.00							
Fertilizer and Basic Tools	9,800.00	17,600.00	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00	25,900.00	
Peeling Cost			87.00	125.00	216.00	257.00	357.00	357.00	357.00	357.00	
Laour charges peeling@ Rs.15 per			3,900.00	5,625.00	9,720.00	14,100.00	16,035.00	16,035.00	16,035.00	16,035.00	
Sub Total	552,300.00	196,300.00	208,937.00	215,163.00	235,836.00	240,257.00	242,292.00	242,292.00	242,292.00	242,292.00	
Revenue Stream											
Cinnamon	0.00	0.00	162,066.00	233,750.00	403,920.00	638,605.00	665,720.00	665,720.00	665,720.00	665,720.00	
Revenue from	0.00	0.00	0.00	0.00	20,250.00	21,375.00	42,750.00	42,750.00	42,750.00	42,750.00	
Sub Total	0.00	0.00	162,066.00	233,750.00	424,170.00	659,980.00	708,470.00	708,470.00	708,470.00	708,470.00	
Revenue - Cost	-552,300.00	-196,300.00	-46,871.00	18,587.00	188,334.00	419,723.00	466,178.00	466,178.00	466,178.00	466,178.00	
IRR	20.2%										
Total											
Discounted	-	-	121,762.58	159,654.40	263,376.20	372,541.50	363,557.13	330,506.48	300,460.44	273,145.85	2,185,004.59
Discounted costs	502,090.91	162,231.40	156,977.46	146,959.22	146,435.60	135,618.81	124,334.11	113,031.01	102,755.46	93,414.05	1,683,848.04
NPV	501,156.55										
B/C Ratio	1.30										
Sensitivity Analysis											
Cost Increase 10%											
Total Cost (+10%)	607,530.00	215,930.00	229,830.70	236,679.30	259,419.60	264,282.70	266,521.20	266,521.20	266,521.20	266,521.20	
Total Revenue	0.00	0.00	162,066.00	233,750.00	424,170.00	659,980.00	708,470.00	708,470.00	708,470.00	708,470.00	
Revenue - Cost	- 607,530.00	- 215,930.00	- 67,764.70	- 2,929.30	164,750.40	395,697.30	441,948.80	441,948.80	441,948.80	441,948.80	
IRR	16.5%										
Total											
Total Discounted	0.00	0.00	121,762.58	159,654.40	263,376.20	372,541.50	363,557.13	330,506.48	300,460.44	273,145.85	2,185,004.59
Total Discounted	552,300.00	178,454.55	172,675.21	161,655.15	161,079.16	149,180.69	136,767.52	124,334.11	113,031.01	102,755.46	1,852,232.84
NPV	332,771.75										
B/C Ratio	1.18										
Revenue decrease 10%											
Total Cost	552,300.00	196,300.00	208,937.00	215,163.00	235,836.00	240,257.00	242,292.00	242,292.00	242,292.00	242,292.00	
Total Revenue (-)	-	-	145,859.40	210,375.00	381,753.00	593,982.00	637,623.00	637,623.00	637,623.00	637,623.00	
Revenue - Cost	- 552,300.00	- 196,300.00	- 63,077.60	- 4,788.00	145,917.00	353,725.00	395,331.00	395,331.00	395,331.00	395,331.00	
IRR	16.10%										

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Year	1	2	3	4	5	6	7	8	9	10	
Total Discounted	-	-	109,586.33	143,688.96	237,038.58	335,287.35	327,201.42	297,455.84	270,414.40	245,831.27	1,966,504.13
Total Discounted	552,300.00	178,454.55	172,675.21	161,655.15	161,079.16	149,180.69	136,767.52	124,334.11	113,031.01	102,755.46	1,852,232.84
NPV	114,271.29										
B/C Ratio	1.06										
Cinnamon Sticks	0	0	0	0	12573.65679	12065.63025	21937.50955	19943.1905	18130.17319	16481.97562	101132.1359