

Culturing Costs					
Cellulose Production					
HS Media	g/L	Price/kg		\$/L culture	
Glucose	20	1.3		0.026	
Yeast Extract	5	5.6		0.028	
Peptone	5	4		0.02	
Sodium Phosphate	2.7	47		0.1269	
Citric Acid	1.15	3.74		0.004301	
		Total		0.205201	\$/L of culture
Fixed Costs					
	Number of Units	Price per Unit	Total	Productivity	\$/L Fermentation (equipment estimated to last 10 years)
Culturing Equipment					
Water filtration	1	1399	1399	10,000L/day	0.00003836
Industrial Autoclave	1	20000	20000	12,000L/day	0.0004566
208L Tank	604	129	77978	208L/day	0.0384
Misc	1	100,000	100,000		
					55 Gallon Ace Roto-Mold Inductor Full Drain Cone Bottom Tank
Cellulose Refinement and Plastic Production					
Dehydrator	58	2,000	117,674	20L dry BC/day	
Plastic Extruder	1	100,000	100,000	10,000L/day	
		Total			HM50 Servo Motor Plastic Injection Molding Machine
Yearly Costs					
	Number of Units	Price per Unit	Total		
Space					
Warehouse in Santa Cruz sqft	20000	12.96	260000		
Utilities	20000	3	60000		https://www.iotacommunications.com/blog/average-utility-cost-per-sq
Misc	1	100000	100,000		
Total			420000		
Human Capital					
Engineers	4	\$30,000 per year	120000		
Marketing	2	\$30,000 per year	60000		
Sales	3	\$30,000 per year	90000		
Administration	3	\$30,000 per year	90000		
Total			360000		
		Total	780,000		
Profitability					
Revenue per liter fermentation (\$/L) =	Yearly Costs (\$)	Fixed Costs (\$) +	Costs per liter fermentation (\$/L)		
0.643 =	780000 +	244583 +	0.3606		
Minimum liters of culture used to be profitable after the first year =	3,277,501				
Minimum acres of plastic sold in the first year to be profitable =	5,004				
Initial Start up cost =	477,051				