

Tidwell's Trees

A Comprehensive Business Plan

By: Brandon Tidwell

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Executive Summary

The People

Owners:

Brandon and Elisabeth Tidwell

Employees:

One Accountant and HR, One Sales and Marketer, One Supervisor, and One Head of Grounds and Safety

The Opportunity

The area of central North Carolina has spread out small and medium operations of different family and industry farms. To compete in this area, most of transactions will need to be with a retail sale lot in large towns like Greensboro, Raleigh, and Charlotte. Other options are to outsource delivery for increase of convenience, or market and product sales adjustment to better meet the needs of the common consumer.

Overview of Risks and Rewards

Rewards

1. Selling Christmas cheer and atmosphere
2. Multi-dimensional products (mulch, oil, tree, and fuel)
3. Employment opportunities
4. Technological opportunities in the business

Risks

1. Seasonal variability
2. Long term investment
3. Climate dependent products
4. Market volatility
5. Small business in large established market

Business Description

Type of Business, Products, Services

Products:

Trees Types and Quantity

Balsam Fir: 3,000 per Year for 4 years (Priced at 2,100.00)

Fraser Fir: 3,000 per Year for 4 years (Priced at 1,770.00)

Concolor Fir: 3,000 per Year for 4 years (Priced at 2,100.00)

Douglas Fir: 3,000 per Year for 4 years (Priced at 1,230.00)

Colorado Blue Spruce: 3,000 per Year for 4 years (Priced at 1,230.00)

Total: 60,000

With a four-year rotation, 15,000 trees will be either sold or removed per year, making it 500 trees either sold or processed into oil per acre. With a loss rate of 20% there are an expected 12,000 tree viable for sale each year. Given some research about total Christmas trees sold in the state and area¹, around 1,000 trees should be expected to sold retail, while the rest of the trees will be sold wholesale to retail lots in the area.

Each are 6" to 1' Seedlings bought at wholesale

¹ <https://quickstats.nass.usda.gov/>

Fir Oil

From Shedding and chipping discarded trees, an est. of nearly 2,000 trees a year to produce about 20,000 fl oz of oil or (667/ac a year) priced at 9.00 an oz by average²

Mulch

Any extra suitable wood chips will be converted into mulch material used on site.

Physical Resource Inventory (legals, facilities, equipment, etc.)

The site of interest is located outside Robins, NC. Once claimed, the 3 acres of ground will be cleared and prepared for a new building site of a small 30'x30' office/storefront steel building (insolated) near the entrance. Another steel building (20'x60') will be constructed nearby to serve as a storage warehouse, allowing for onsite security of capital and products. Next to it, a chemical shed will be placed to safely store and facilitate any hazardous chemical use. Since this will be a start-up business, procurement of 2 motor vehicles, 2 tree shredders, 2 utility vehicles, and 2 small skid steers with appropriate attachments (spades, trimmers, and tree cutters), and one distiller will be needed to begin. Other materials like tarps, barrels, labels, pesticides, office supplies, and a data log program will be necessary to sell the tree and oil products.

Startup Needs:

Item	Quantity	Cost	Expected Life*	Down and loan payments
Parking Lot (sq ft)	4,000 sq ft	\$34,000		Full
Land	42.9 ac	\$150,000	N/A	1470/ mo. with a 30 year fixed payments for 5.5APR ³
Building	2	\$80,000	25 years	1,318.36/mo. with a 3.5 %APR loan ⁴
Truck	1	\$80,000	12 years	712/mo. ⁵
Distiller	1	\$13,690	10 years	full
Utility vehicles	2	\$32,000	15 years	3171.63/mo. with a 4.7% APR from Farm bureau ⁶
Cutter attachment	2	\$25,000	8 years	
Trimmer and spade	2	\$40,000	8 years	
Skid Steer	2	\$90,000	10 years	
Shredder	2	\$22,415	8 years	

² <https://www.bulkapothecary.com/fir-needle-essential-oil/>

³ <https://agamerica.com/land-loans/agricultural-land-loans/>

⁴ <https://www.bankrate.com/calculators/mortgages/mortgage-calculator.aspx>

⁵ <https://www.bankrate.com/calculators/auto/auto-loan-calculator.aspx>

⁶ <https://www.farmbureaubank.com/Tools/LoanPaymentCalculator>

Initial Investment:

Item	Cost (8 years into operation, no revenue until then)
Equipment, buildings and Land Loan	\$688,201.04
Inventory	\$10,000.00
Pesticide	\$12,000.00
Fertilizer	\$9,600.00
Misc. Supplies	\$96,000.00
Parking Lot	\$34,000.00
Total	\$849,801.04

Annual budgets:⁷

Annual Budget After Year 8		Per Acre	30 Ac farm	
INCOME		Quantity	Price/Tree	Amount
	Christmas Trees-wholesale	363	\$50.00	\$18,150.00
	Oil	667	\$4.95	\$3,301.65
	Christmas Trees-Retail	37	\$90.00	\$3,330.00
	Outside income			\$400.00
VARIABLE COSTS				
	Seedlings	500	\$0.80	\$369.60
	Fertilizer	500	\$0.07	\$33.00
	Herbicides	500	\$0.06	\$26.40
	Insecticides	500	\$0.07	\$33.00
	Shearing	500	\$0.25	\$115.50
	Hired Labor	9	\$9.00	\$81.00
	Fuel, Oil, Grease	500	\$0.02	\$9.90
	Machinery Repairs	500	\$0.01	\$6.60
	Harvesting	400	\$4.05	\$1,583.55
	Miscellaneous	500	\$0.04	\$19.80
	Salary			\$5,333.33
TOTAL VARIABLE COSTS				\$7,611.68
FIXED COSTS				
	Operator Labor Charge	2.5	\$10.00	\$25.00
	Mach. And Equip. Charge			\$295.75
	Land Charge			\$49.00
	Management Charge			\$2,000.00
	Depreciation			\$106.98
TOTAL FIXED COSTS				\$2,476.73
TOTAL COSTS				\$10,088.41

⁷ <https://farmoffice.osu.edu/farm-mgt-tools/farm-budgets#Christmas>

RETURN ABOVE VARIABLE COSTS				\$17,569.97
RETURN OVER TOTAL COSTS				\$15,093.24

Annual Budget Before Year 9		Per Acre	30 Ac farm	
INCOME		Quantity	Price/Tree	Amount
	Christmas Trees-wholesale	-	\$45.00	
	Oil	-	\$4.95	
	Christmas Trees-Retail	-	\$90.00	
	Outside income			\$400.00
VARIABLE COSTS				
	Seedlings	500	\$0.80	\$400.00
	Fertilizer	500	\$0.07	\$35.71
	Herbicides	500	\$0.06	\$28.57
	Insecticides	500	\$0.07	\$35.71
	Shearing	500	\$0.25	\$125.00
	Hired Labor	10	\$9.00	\$90.00
	Fuel, Oil, Grease	500	\$0.02	\$10.71
	Machinery Repairs	500	\$0.01	\$7.14
	Harvesting		\$4.50	\$-
	Miscellaneous	500	\$0.04	\$21.43
	Salary			\$1,500.00
TOTAL VARIABLE COSTS				\$2,254.29
FIXED COSTS				
	Operator Labor Charge	3.85	\$10.00	\$38.50
	Mach. And Equip. Charge			\$295.75
	Land Charge			\$49.00
	Management Charge			\$-
	Depreciation			\$106.98
TOTAL FIXED COSTS				\$490.23
TOTAL COSTS				\$2,685.03
RETURN ABOVE VARIABLE COSTS				\$(1,854.29)
RETURN OVER TOTAL COSTS				\$(2,344.52)

Physical Resource Emergency Plan

The area of central North Carolina has a history of hurricanes, tornados, floods, snowfall, wildfires, and ice storms⁸ The state itself is ranked 5th in the country for number of homes at high risk of natural disasters. Specifically, central North Carolina counties are at a risk of hurricane damage. The best way to mitigate losses from disasters is to have crop insurance that covers major disaster events (hurricane damage, tornado damage, storm damage. This multi-faceted insurance would ideally cover any major losses. There are options for federal subsidies for losses through the Tree Assistance Program (TAP), as well as general crop insurance availability.

Clear communication about what to do in the event of a natural emergency to ensure the employee's and facilities safety. Evacuation plans, storage and shut down protocol, and emergency leadership hierarchy and responsibilities are needed to successfully handle an emergency. For each response, the safety of the personnel is paramount and will take precedent in procedure.

Strategic Plan

Values, Vision, Mission, Objectives, Goals

Values:

Family, Inclusion, Sustainability, and Service

Vision

Create cheer, hope, and magic for the holidays in a sustainable, yet convenient for everyone manner.

Mission

Our mission here at Tidwell's Trees is to embody the holiday spirit of giving with quality services to our consumers and to the community.

Goals

1. Provide Quality Services to Consumers
 - a. Increase Brand Awareness and Benefits.
 - b. Improve Fluidity and Convenience for the Consumer.
 - c. Establish an Employee Tracking Method.
 - d. Foster Employee Knowledge and Ability
 - e. Provide a Safe and Easy to Navigate Area
 - f. Utilize Technology to Better the Consumer Experience
2. Provide Quality Services to the Community
 - a. Create Reproes with Local Service-Related Organizations
 - b. Sponsor Support for Local Issues
3. Embody the Holiday Spirit of Giving
 - a. Host an Atmosphere that is Inclusive yet Festive for the Season

⁸ <https://www.bizjournals.com/triangle/blog/real-estate/2015/09/n-c-ranks-no-4-for-homes-at-risk-of-natural.html>

b. Provide a Hallmark Service Unique to Tidwell's Trees.

Objectives

1. Innovate promotional material for the new business
2. Provide an interactive website and incentivize reviews
3. Continuously exploring new routes of improving access to sales
4. Streamline a physical process for maximum rotation and consumer service
5. Create monthly awareness and training seminars

Internal and External Factor Analysis□

SWOT

Strengths: Flexibility, Small-medium scale, Family-oriented, Adaptive, and Innovative model; Area suitable for production,

Weaknesses: New operation requires new staffing, facilities, and inventory. Measures must be in place to quality check each aspect of the company. Production limits location, so adjustments must be made to appeal to possible consumers,

Opportunities: Consumer health and oil trend growth, holiday popularity, and increasing population.

Threats: Large and consistent market, Diminishing demand due to allergies and substitutes, High risk for natural disasters, High competition

Sales and Marketing Plan

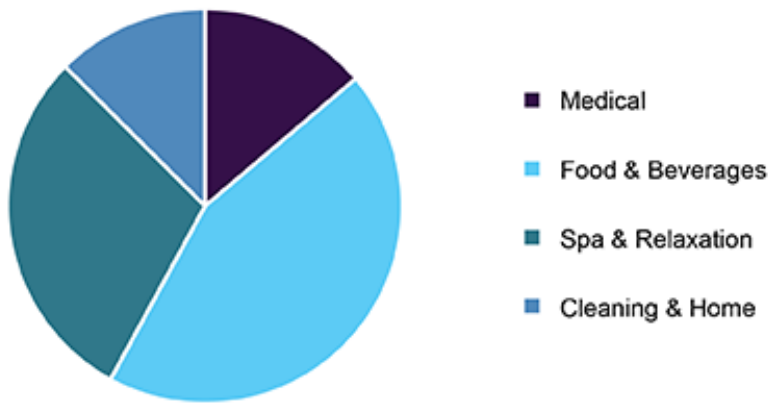
Product or Service Marketing Plan

Different avenues of sales are open for the products of Tidwell's Trees. Wholesale trees can be marketed to multiple retail areas in Raleigh, Greensboro, and Winston-Salam. Below is a sample list for contracted deals for product:

Retail List/ Advertising	Wholesale Market	Oil Marketing
NC Christmas Trees Website	Market to Lowe's	Bulk Apothecary Website
Local Posting	Tractor Supply	Amazon
Newspapers	Home Depot	Walmart
News Station Ads	Ace Hardware	Lowe's
Online Advisement	Wholefoods	Costco
TV Ads	Costco	
	Amazon	Target
	Target	Tractor Supply Co

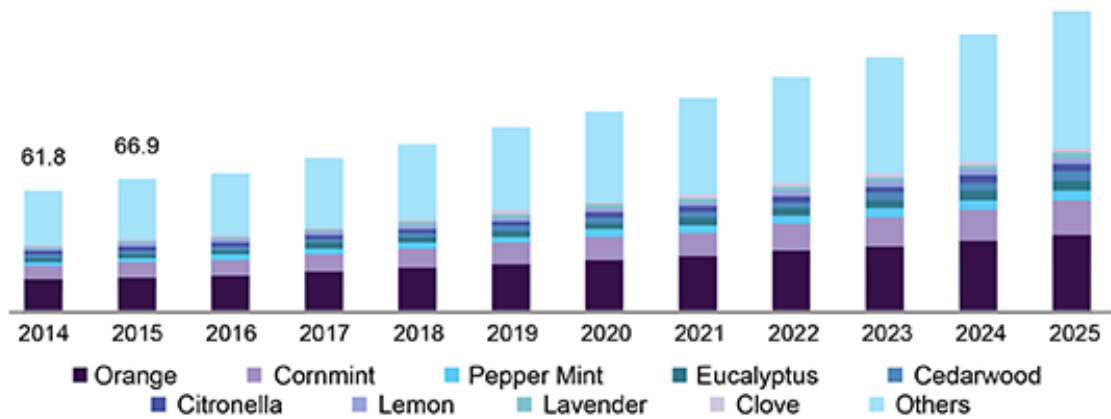
For Oil:

Global essential oils market volume share, by application, 2018 (%)



Source: www.grandviewresearch.com

U.S. essential oils market demand, by product, 2014 - 2025 (Kilotons)



Source: www.grandviewresearch.com

For Trees

According to Agricultural Marketing Resource Center, North Carolina is second in live Christmas tree production with a market of 5.4 million trees, leading in the nation with Douglas fir sales. The total tree sales increased from 2009 to 2014 by 116.7 million dollars⁹

There are two separate ways to market a Christmas tree farm: Cut your own retail experience, or more pre-cut wholesale experience. My design is to be able to accommodate both audiences to reach my sale goals and maximize profits. The plan will be discussed with detail in the production process section.

One target audience is local families, mainly middle to upper-class families with at least one child below the age of 16. Others possible audiences include local businesses, landscaping, and retail facilities. The structure and facilities will be able to accommodate most consumers, as long as there is plenty of notice and proper staffing.

Market Risk Management Plan

The best way to ensure an effective marketing plan is to increase knowledge about possible risks and threats to a marketing plan and adjust as necessary. The four components for risk management for the market are Identification, Analysis, Response, and Monitoring. For this plan, the risks are: Target Market Confusion or Miscalculation, Dynamic Oil Market trends, and Misleading or Ineffective Promotion. To better understand each risk, the areas' population distribution, market price and volume dynamics, consumer trends, and overall economic performance must be monitored. Responses to each risk are different, and come from a couple of sources. Competitors' response can serve as a guide, but originality is always encouraged. Another source of which response to take could be found via surveys, marketing statistics, and questionnaires. If there is a failure in marketing, meetings with the owner and head of marketing will be set, with a detailed plan to identify the current issue, pose possible solutions, and decide on a plan of action.

Quality Control Plan

Each Tree will be inspected before sale and must meet certain guidelines to be suitable for sale. The trees must reflect quality in color, structure, shape, and fullness typical to an expected tree. Tagged trees must be sufficient in quality. To make sure quality is upheld, at least 2 people must agree on the quality. A biannual inventory check must be made to take note on the health of the plants. Nonapproved plants will be selected for oil making, unless severe disease is present. Oil must be inspected by an outside source to verify its quality and purity. All sold products will come with a warranty for protection from defective products.

Inventory Management Plan

The main constraint for the inventory management is space and timing. Labor saving practices will allow greater access to sales and consumer satisfaction, but also increases injury risk with greater exposure to heavy machines. A balance of machinery and labor is found with a moderation of heavy machines and active labor. Space for rotating storage can be found in the warehouse, to keep the trees dry and safe for pickup. Up to a few hundred trees could possible fit in the designated space for inventory. Other special equipment will be stored in the warehouse when not in use, as well as a stock of supplies, repair equipment and other tools.

Production and Operations Plan

Product, Production Process, and Production Scheduling Plan

Since the products sold are solely from grown trees, the production process mirrors the growth pattern for the grown fir trees. It takes an average 8-9 years for a single sapling to grow into maturity for sale. To operate yearly, the products harvested will be replenished each year, depending market demand and price flux. In a single year, each tree will be examined at least twice for overall health and any disease or pest pressure. In it's lifetime, a tree will be properly watered, fertilized, and trimmed as it grows into maturity. Each type of tree has been selected to be suited the land's soil and typical environment. Soil testing will be made to make

⁹ <https://www.agmrc.org/commodities-products/forestry/christmas-trees>

accurate fertilizations. Sales will start in September of each year, until Dec 23rd. Oil will be produced from woodchips, needles and suitable discarded trees via a distillation process. Each batch should take around 3-4 hours for production, and it is estimated that around 71 batches will be sold and thus replaced per year, based on the area's oil market saturation.

Environmental Stewardship Plan

The greatest resource for this business is the land and there must be policies in place to protect and preserve the land's integrity and productivity. In addition, Responsible use of hazardous chemicals must be upheld to protect the surrounding environment. Every year, a health assessment and plan will be made to address the dynamic needs for the land and its environment. In the most basic form, the plan must adhere to local and national guidelines for an agricultural business for sustainability and responsibility.

Production Risk Management and Emergency Plan

Possible events to affect the company and response.

Drought/Flood/ Infestation: Being the most likely yearly event, measures to combat them should be implemented swiftly. For a drought, rotating water schedules with noted health screens would be required to mitigate damage. For a flood or wet period, increased monitoring and fungal screening should be placed, and measures to combat rot should take place. During an a biotic infestation, identification and professional handling will take priority- then measures to limit spread and loss should follow that.

Data Breach: Notice of Breach, Personal Apology, Suggested Actions and Concerns, and Measures we are doing to better protect their information. Actions to prevent said disaster: Use a secure service for credit cards. Log all marketing and personal information in an encrypted and secure online data service.

Break-in: If there is evidence for forced entry, call to the police is encouraged, so that the incident is reported. After the area is cleared, actions to inventory all facilities, equipment, and property for the company. If anything is missing, it should be noted and filed with the supervisor for appropriate action. Insurance claims may be made if qualified. Vandalism and losses will be handled with haste and pursued for profit loss. Actions to prevent said disaster. Deterrents will be required to mitigate the risk for a break-in crime- mainly surveillance and basic security measures. Sensitive information will be secure and separate from public areas and under surveillance. All employees must have a background and personality test to work, all consumers will not be allowed into restricted areas, and will be removed if discovered without access. If foul play is expected, a prompt investigation will be discussed with the owners.

Robbery: Life, above all else, is the most important thing for this company. At any time during a robbery cooperation is required- all actions must be made with caution and concern for life. Once the suspects leave, a prompt call and report with the police is required. Requested time off after an event like this must be heavily considered for mental health recovery. Actions to be taken to prevent said disaster: Like the Break-in scenario, deterrents and basic security measures are the best weapon to minimize the risk of robbery. Surveillance of areas handling money is a must.

Lawsuit: Civil communication for all employee's involved, in any manner is encouraged. The company lawyer will advise the best course of action and segmenting some information may be required. For all cases, the owners and supervisors must be informed with all of the information. Actions to prevent said disaster: quality control protocol for all workers, legal disclaimers, and warnings for all foreseeable liabilities must be taken. Quality control methods for workers and employees will be explained under Quality Control Plan.

Fire: Actions to protect the employees is always paramount over facilities, so all workers are highly encouraged to evacuate as soon as a fire threat is discovered. If the fire is off-site when discovered, possible relocation of movable facilities may be explored, but only by the willing and if the situation is not in

immediate danger. If the fire is onsite, actions to stop it is only taken by the worker's own initiative, and will not be encouraged by the company. If the fire continues to spread past origin personnel will be required to leave for their own safety. Proper procedures under OSHA and State guidelines will take precedence over company rules. Actions to prevent said disaster: Equipment protocol and dangers on site will be made, communicated, and posted for all workers and consumers to understand.

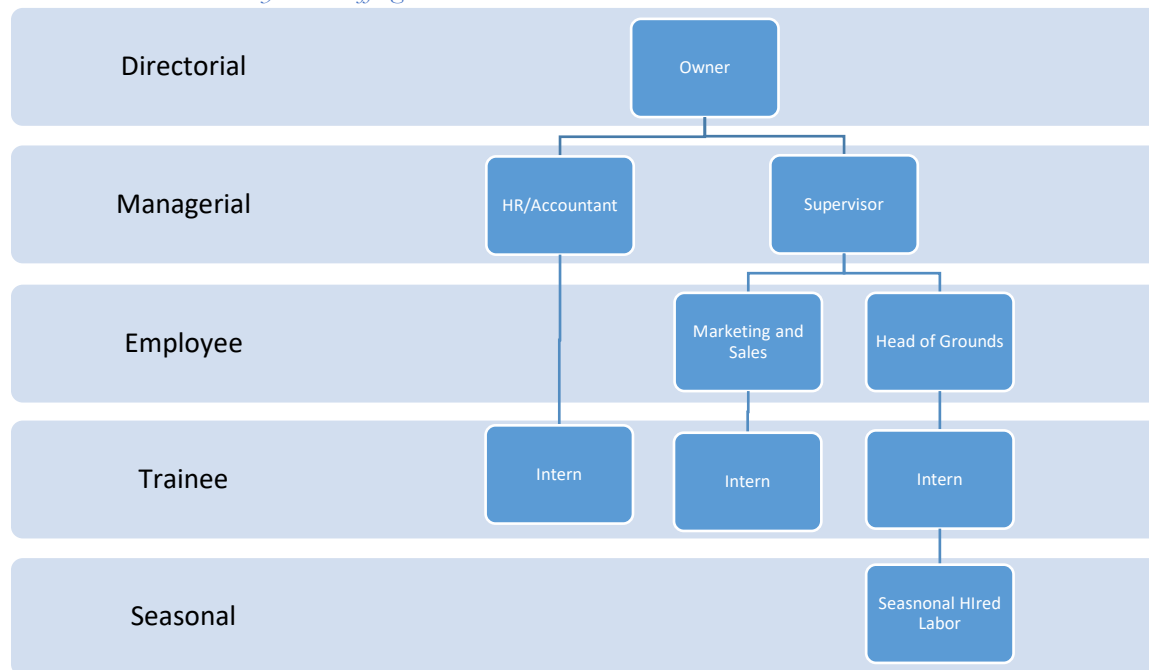
Other Natural Disasters: First, notice to the community if we must take time to recover. Depending on facility damages, and product loss, will determine if rentals or reorders are needed. Property repairs or facility replacement will be outsourced by insurance procedure. Estimated cost and losses must be made for a claim, and potential solutions should be explored to minimize profit loss. Actions to prevent said disaster: Have comprehensive, clear, and understood insurance on property, facilities, and inventory. In cases where salvation is not possible, disaster loans or relief may be available. Plans for emergency procedure for all types of emergencies will be developed and communicated during intake training under OSHA

Organizational and Staffing Plan

Legal Structure

Legally, the business will be structured as a limited liability company, so that the sole control of the company will be under the initial owners, as well as some of the limited risk and management.

Human Resource Inventory and Staffing Assessment



The duties for each role are as follows:

Owner: Oversees and Managerial and Employee roles and fills the positions. Has final say on decisions, excluding any internal issues regarding him/her-self. The owner will provide any resources necessary to complete all the employee's tasks. The owner leads the weekly upper committee which consists of the supervisor and HR/Accountant, addressing the business weekly updates and concerns. Pay will be the management charge at \$60,000/yr (2,000/ac *30 ac)

Human Resources/ Accountant- correspond comments and complaints from all employees to the owner, unless it involved the owner, then to the supervisor. Catalog and maintain all hired persons' paperwork. Provide a Monthly training to promote awareness about business issues or concerns decided by the upper committee. Must also record and catalog transactions and provide quarterly and annual financial reports to the upper committee. All records must be kept in both a database and paper.

Supervisor- Leads all employees in weekly meetings and oversees all employee actions, assisting where needed most. Also communicates weekly reports to the owner. Also serves as the proxy for compliments or comments to the owner. All internal issues are led by the supervisor in the upper committee meetings. Helps all employees grow and understand the process for the business.

Marketing and Sales- runs approved programs to promote business sales with marketing techniques. Also serves as the company sales representative for intrabusiness contracts.

Head of Grounds- is responsible for all aspects for growing the trees and ground caretaking. Will be leading hired labor to meet all goals. Health and updates will be reported daily to the Supervisor.

The total salaries between the 4 full time employees should average to about \$40,000/yr each, making a salary budget at \$160,000/yr ($5,333.34/ac * 30ac = 160,000$) Ideally each position would be rated at \$40,000/yr.

Human Resource Risk management and Emergency Plan

Each potential employee must be able to pass a background check to limit misconduct- and each interview must adhere to non- discriminatory questions, screening, and other procedures during the hiring process. No empty promises or contact signing until it is mutually agreed upon that the employee will be working at the Company. A reasonable training period for each duty will be set after hire. Measures to inform and remind about safety risks will be posted to reduce occupational health hazards. Safety equipment and training to use equipment will take place after hire. PPE will be used when hazardous chemicals are handled. Employee power will be checked with an anonymous reporting of wrongful conduct/harassment to HR, then an investigation will take place. Sensitive employee data will be kept in a time sensitive safe and encrypted in the data management software. All records of reports and issues will be reserved in paper and the data management system. All valuables will be secure and locked daily, and anyone handling money will have to report sales and cash to the supervisor who will check the sales volume to cash revenue to make sure they add up. When employees are exiting the company, all physical and data access will be removed and all final compensation will be leveled. An integrity and feedback exit interview will take place. All financial reports will be checked by the upper committee and require 3 separate signatures

When an employee cannot come into work either the intern or another employee may take on the responsibilities of the employee for that day. Cross-training and communication will help make this happen, but will not be possible in all cases. Either the supervisor or the owner should be able to work most duties, but realistically, may not be possible. When an employee is leaving, the role will be temporary filled by the supervisor or the owner until a suitable replacement can be found.

	Sep			Marketing of new businesses to come plan start					
	Oct	Bi yearly land review				Outside Investment	12,000.00	12,000.00	862,000.00
	Nov					Yearly Expenses	\$(26,835.47)	\$(26,835.47)	\$835,164.53
	Dec	Loan Payment				Loan Payment	(57,914.52)	(72,749.99)	\$777,250.01
Year 2									
	Jan	Start posting for seasonal labor	Refelct on preformance and adjust	Start outreaching for retail contracts					
	Feb	Bi yearly land review		Start order for distillor and trail run					
	Mar								
	Apr								
	May	Begin planting/watering	Mulch						
	Jun	Finish planting/watering							
	Jul	Fertilizer and Pesticide application							
	Aug				Finish procurment of two salary workers				
	Sep								
	Oct	Bi yearly land review				Outside Investment	12,000.00	(60,749.99)	789,250.01
	Nov					Yearly Expenses	(105,335.57)	(166,085.56)	\$683,914.44
	Dec	Loan Payment		Begin campaign for new businesses marketing		Loan Payment	(57,914.52)	(224,000.08)	\$625,999.92

Year 3									
	Jan	Start posting for seasonal labor	Refelct on preformance and adjust	Finish building s					
	Feb	Bi yearly land review		Move and finalize equipm ent set up					
	Mar			Appresi al for total sales volume					
	Apr								
	May	Begin planting/w atering	Mulch						
	Jun	Finish planting/w atering							
	Jul	Fertilizer and Pesticide application							
	Aug								
	Sep								
	Oct	Bi yearly land review			Outside Investment	12,000.00	(212,000.08)	637,999.92	
	Nov				Yearly Expenses	(105,335.57)	(317,335.65)	\$532,664.35	
	Dec	Loan Payment			Loan Payment	(57,914.52)	(375,250.17)	\$474,749.83	
Year 4									
	Jan	Start posting for seasonal labor	Refelct on preformance and adjust	Set up diaster releif budgets (for bad years)					
	Feb	Bi yearly land review							
	Mar								
	Apr								
	May	Begin planting/w atering	Mulch						
	Jun	Finish planting/w atering							
	Jul	Fertilizer and Pesticide application							

	Aug								
	Sep								
	Oct	Bi yearly land review				Outside Investment	12,000.00	(363,250.17)	486,749.83
	Nov					Yearly Expenses	(105,335.57)	(468,585.75)	\$381,414.25
	Dec	Loan Payment				Loan Payment	(57,914.52)	(526,500.27)	\$323,499.73
Year 5									
	Jan	Start posting for seasonal labor	Refelct on prefor mance and adjust						
	Feb	Bi yearly land review							
	Mar								
	Apr								
	May	Begin planting/w atering	Mulch						
	Jun	Finish planting/w atering							
	Jul	Fertilizer and Pesticide application							
	Aug								
	Sep								
	Oct	Bi yearly land review				Outside Investment	12,000.00	(514,500.27)	335,499.73
	Nov					Yearly Expenses	(105,335.57)	(619,835.84)	\$230,164.16
	Dec	Loan Payment				Loan Payment	(57,914.52)	(677,750.36)	\$172,249.64
Year 6									
	Jan	Start posting for seasonal labor	Refelct on prefor mance and adjust						
	Feb	Bi yearly land review							
	Mar								
	Apr								
	May	Begin planting/w atering	Mulch						
	Jun	Finish planting/w atering							

	Jul	Fertilizer and Pesticide application							
	Aug								
	Sep								
	Oct	Bi yearly land review				Outside Investment	12,000.00	(665,750.36)	184,249.64
	Nov					Yearly Expenses	(105,335.57)	(771,085.93)	\$78,914.07
	Dec	Loan Payment				Loan Payment	(57,914.52)	(829,000.45)	\$20,999.55
Year 7									
	Jan	Start posting for seasonal labor	Refelct on prefor mance and adjust						
	Feb	Bi yearly land review							
	Mar								
	Apr								
	May	Begin planting/w atering	Mulch						
	Jun	Finish planting/w atering							
	Jul	Fertilizer and Pesticide application							
	Aug								
	Sep								
	Oct	Bi yearly land review				Outside Investment	12,000.00	(817,000.45)	32,999.55
	Nov					Yearly Expenses	(105,335.57)	(922,336.02)	\$(72,336.02)
	Dec	Loan Payment				Loan Payment	(57,914.52)	(980,250.54)	\$(130,250.54)
Year 8									
	Jan	Start posting for seasonal labor	Refelct on prefor mance and adjust	Start procure ment for all posistions and interns					
	Feb	Bi yearly land review							
	Mar								
	Apr								
	May	Begin planting/w atering	Mulch						

	Jun	Finish planting/watering							
	Jul	Fertilizer and Pesticide application		Finish procurement					
	Aug			Begin Sales					
	Sep								
	Oct	Bi yearly land review			Outside Investment	12,000.00	(968,250.54)	(118,250.54)	
	Nov				Yearly Expenses	(105,335.57)	(1,073,586.11)	\$(223,586.11)	
	Dec	Loan Payment			Loan Payment	(57,914.52)	(1,131,500.63)	\$(281,500.63)	
Year 9									
	Jan	Start posting for seasonal labor	Refelct on prefor mance and adjust						
	Feb	Bi yearly land review							
	Mar								
	Apr								
	May	Begin planting/watering	Mulch						
	Jun	Finish planting/watering							
	Jul	Fertilizer and Pesticide application							
	Aug								
	Sep								
	Oct	Bi yearly land review			Outside Investment	12,000.00	(1,119,500.63)	(269,500.63)	
	Nov				Net Revenue	\$452,797.20	(678,703.43)	\$183,296.57	
	Dec	Loan Payment			Loan Payment	(57,914.52)	(736,617.95)	\$125,382.05	
Year 10									
	Jan	Start posting for seasonal labor	Refelct on prefor mance and adjust						
	Feb	Bi yearly land review							
	Mar								
	Apr								

	May	Begin planting/watering	Mulch						
	Jun	Finish planting/watering							
	Jul	Fertilizer and Pesticide application							
	Aug								
	Sep								
	Oct	Bi yearly land review							
	Nov					Net Revenue	\$452,797.20	(283,820.75)	\$578,179.25
	Dec	Loan Payment				Loan Payment	(57,914.52)	(341,735.27)	\$520,264.73
Year 11									
	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov					Net Revenue	\$452,797.20	111,061.93	\$973,061.93
	Dec					Loan Payment	(57,914.52)	53,147.41	\$915,147.41
Year 12									
	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov					Net Revenue	\$452,797.20	505,944.61	\$1,367,944.61
	Dec					Loan Payment	(57,914.52)	448,030.09	\$1,310,030.09
Year 13									
	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								

	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov								
	Dec					Net Revenue	\$452,797. 20	2,000,699. 15	\$3,458,187 .05
Year 18									
	Jan								
	Feb								
	Mar								
	Apr								
	May								
	Jun								
	Jul								
	Aug								
	Sep								
	Oct								
	Nov								
	Dec					Net Revenue	\$452,797. 20	2,453,496. 35	\$3,910,984 .25

Capital Needed and Investment Analysis

Needed Capital:

ITEM	COST (8 years into operation, no revenue until then)
Equipment and Land Loan	\$688,201.04
Inventory	\$10,000.00
Pesticide	\$12,000.00
Fertilizer	\$9,600.00
Misc. Supplies	\$96,000.00
Parking Lot	\$34,000.00
Total	\$849,801.04

Investment analysis:

PRESENT VALUE RETURNS		
	After 5 years	\$(910,859)
	After 10 years	\$(722,372)
	After 15 years	\$(42,071)
	After 20 years	\$208,314
	After 30 years	\$123,271

- NPV (10%) is Positive in year 18¹⁰
- Payback Period is about 12 years⁸
- Internal Rate of Return is about 37% after year 19.⁸

Financial Monitoring and Control Plan

Each month, a performance review of all sales, revenue and expenses will be discussed in the upper committee meetings. This review will measure how the company meet its financial goals and set new ones. Yearly adjustments and full reviews will happen in the spring to meet the dynamic needs of the market. Labor requirements, products and services may change to adhere to changes in the budget as needed.

Financial Risk management and Plan for dealing with Financial Stress

Financial Risk Management Plan

As a business completely reliant on a single market and good weather, which leads to plenty of risk, especially with a long-term model that does not generate revenue until 8 years after into the business. Because of this model, the investment has a high risk. To combat this, crop insurance, climate mitigation management, asset insurance, and active and dynamic risk management training will be found. During the yearly training, methods of improving our risk management and market durability will be explored.

Financial Stress plan

Once the financial situation is discovered as less than desired, a plan will take place to help improve the efficiency to get back on track to a better financial future. This plan will start by seeking possible routes of aid or assistance, depending on the source for financial stress. If there is no apparent source, an investigation to find how the operations changed and how to best proceed will be discussed in upper committee meetings.

NOTES from defense:

- Invalid IRR/ NPV
- Reduce full time staff (no need for account/HR full time, contract it)
- Oil Production is too large with the equipment currently budgeted
- Must improve target marketing plan to project success to argue for double financing.
- More Help (hired/contracted)
- Need an insurance cost in budget (Asset, life, property, emergency)
- Discuss opportunity costs (discuss why it's better than investing in stocks or bonds)
- Oil production is deemed ineffective for maximizing profits (due to large capital), switch to mulch and small-scale house oil production.
- Recheck all fixed cost estimates after adjusting needed capital to verify numbers.

¹⁰ https://ostatemailokstate-my.sharepoint.com/:x:/g/personal/brandon_tidwell_okstate_edu/EVyNav-mFYtDlr3b_3UmKUABXCFzsXSFf2WO_2N7-0UCuQ?e=NDtT3v