**AFE BABALOLA UNIVERSITY, ADO-EKITI**

**COLLEGE OF SCIENCES**

**DEPARTMENT OF COMPUTER SCIENCE**

**A REPORT ON:**

**A FEASIBILITY STUDY ON GRAPES FARMING**

**CREATED BY:**

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**GST 212**

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# **CHAPTER 1: EXECUTIVE SUMMARY**

Grape is one of the most important exotic Fruits in Nigeria. Its profile is raising due to widespread knowledge of its inherent healthbenefits. To sustain the availability of the crop in order to meet increasing demand,there is the need to enhance its productivity. Crop productivity depends on theefficient use of both material and human resources utilized in the productionprocess. This study therefore examines profitability and efficiency of grape production in Sapele local government area of Delta state. Primary data on socioeconomic characteristics of farmers, input and output quantity and prices were collected from 15 grape farmers and analysed using descriptive statistics. Majority of the farmers were male(75.3%) with average age of 40.2 years. An average of 23.3 years of farming experience cut across both gender groups. The average hectare was 1 with average yield of 7,445 kg/ha. The result of the random frontier indicated that farmsize and volume of agrochemical used significantly influenced grape production. Age, education status of farmers and access to credit were the significant factors determining technical efficiency of the farmers in the study area. The study recommends capacity building for farmers on an appropriate combination of resources. Seeing this “Graced Crops” project set to be commissioned by Mr Moyede Praise will proceed with the business plan that will be discussed in this feasibility report

**CHAPTER 2: INTRODUCTION**

In 2020, the idea of growing vegetables emerged to Mr Praise, the commissioner of the project. The farm is to be called the “Graced Crops”. The main objective of this farm was to produce good healthy vegetables. Although it basically begun with Grapes, in a long run, it intends to plant other fruits like oranges and apples and help feed our nation.

Fruit farming involves the growing of fruits for human beings; commercially it is sold in market for profit. Fruit farming began in several parts of the world a few thousand years ago. Initially humans could only grow fruits via manual means, but as soon livestock were domesticated and used to plough the farm, for fruit farming. In the recent time, nearly all fruit farming processes are mechanised. In Nigeria, fruit farming is one of the easiest agricultural practices a farmer can venture into and the demand for fruit is year round, creating a steady flow of income for the farmer.

The fact that most fruits are highly perishable was of course considered; therefore marketing plans were put in place even before cultivating the crops. Once the market for the produce was well thought out, proper field selection started, considering the field topography, soil type and water availability and quality. Another factor we had to consider was the pests present in the area since they played a role in deciding which crops could be cultivated and survive without suffering from countless attacks from pests. Research on the relevant government policies and implications regarding farming were also reviewed. Seeing that finding sponsors for the Graced Crops was necessary, the enterprise sought for grants from private bodies willing to offer; of course they will come to inspect the site based on the application. We have been waiting patiently for our application to be accepted.

**GOALS**

To become one of the leading Grape farms in Nigeria but also on the global stage by producing high quality and well developed products.

**CHAPTER 3: MARKET AND MARKETTING**

 Graced Crops started with grapes, grapes farming can be very profitable if done the right way. A readily available market coupled with bountiful harvest is a perfect recipe for success in grapes farming. Its large production rate (about 500,000 in 2017 alone) is in direct proportion to the crops local and international demand, making its production for local retail or export a lucrative one for people to venture into.

 **MARKETING PLAN**

It is always better to sell grapes to organized markets like SPAR, fruit shops, etc. a kilogram of grapes goes for #300 - #500. Seeing how competitive and hard to get a contract from such organized markets, selling to small markets around farm towns or larger markets like Oba market and Sapele Market is a good start. Its only disadvantage is that the prices are unpredictable. Graced Crops will of course experience peak and off peak times every year. Prices of fresh grapes can vary from up to 300% in a year.

 Graced Crops will contribute to the daily sales of grapes in the daily small markets. The enterprise is targeting retail shops like Memories supermarket as well as major hotels in the environment like Peemos hotels, etc. retail stores in the capital city Asaba as well as Warri are also being considered but there is a lot a lot of competition although locally in the town of Sapele, there is no competition. To supersede our competitors, we intend to provide fresh products and on time.

# **COMPETITOR ANALYSIS FOR HALLELUJAH CULTURE**

People will buy from us because of the following reasons:

1. The provision of high quality and purely processed grapes.
2. Unique, intriguing and standard packaging.
3. Excellent customer care services.
4. Fair and cheapest possible prices.

# **CHAPTER 4: PROJECT ENGINEERING**

 Soil test was carried out by a soil analyst on the land to be purchased; soil fertility, as well as its topography was considered (Flat farmland is better as sloppy land encourages erosion) the soil test revealed the pH of the soil; it also showed the level of nutrients in the soil. The soil test showed the level of nitrogen, potassium, phosphorus, calcium, magnesium,carbon, boron and other micro nutrients in the soil. This of course guided the farmer on the type of fertilizers to apply to his grape farm. Diseases in the soil and soil microbial countwere also shown and Solutions were provided, chloride free fertilizers like Potassium nitrate, Calcium nitrate and microbial inoculants were purchased to be used. #150,000 was set aside for the drip irrigation of the grapes. With deep irrigation, water is saved and labour cost is reduced, fertigation is enabled and yield is greatly increased.

 Graced Crops intends to grow grapes under protected cultivation (Greenhouses) and in open fields. Since grapes can only grow under tropical conditions, this will definitely increase its productivity.

# **CHAPTER 5: MATERIALS, PRODUCTION AND PLANTS**

COST FOR ONE ACRE OF GRAPES

|  |  |
| --- | --- |
| MATERIAL | RATE |
| Rent for one acre of land | #10,000 |
| Fertilizer  | #150,000 |
| Manure  | #10,000 |
| Pesticides  | #10,000 |
| Hybrid seeds  | #20,000 |
| Labour for 3 months | #90,000 |
| Drip irrigation | #150,000 |
| Knapsack sprayer | #5,000 |
| Staking | #15,000 |
| Soil test | #5,000 |
| Farm tools | #5,000 |
| TOTAL | 470,000 |
|  |  |

COST FOR POWER HOUSE

|  |  |
| --- | --- |
| MATERIALS | RATE |
| Structure | #1,000,000 |
| Tank (200liters) | #15,000 |
| Pumping machine (1hp) | #30,000 |
| PVC pipe | #2,000 |
| Timer and panel | #40,000 |
| Electrical wire and socket | #10,000 |
| Filter and knobs | #38,000 |

START UP EXPENSES

|  |  |
| --- | --- |
| START UP REQUIREMENTS | COST |
| Farm structures | #2,500,000 |
| Power house | #1,650,000 |
| Green house | #250,000 |
| Supplies | #545,000 |
| Transport | #60,000 |
| Miscellaneous | #250,000 |
| Rent for farm land | #20,000 |
| Total | #**5,275,000** |

**CHAPTER 6: LOCATION AND SITE**

 Graced Crops will be sited in Akintola, Sapele, Delta state. This location was chosen because the inhabitants of the land have a strong love and passion for farming, also grapes has been very successful in this area. The site also has good roads for accessibility and evacuation of farm produce minding the fact that grapes spoil within days. The topography of the farm was very good and the results of soil test were good. Climate of this area was also considered as well as the availability of water and electricity. Apart from all this positive features, the land is close to a well-known and popular local market.

# **CHAPTER 7: PROJECT IMPLEMENTATION**

 After successfully becoming the most sought after distributors of grapes in the local markets, Graced Crops will proceed to partner with hotels and stores in Sapele like Peemos hotel and even the Memories Supermarket. By our third year, Graced Crops would have owned its own retail store, yet still supplying other stores and hotels. We would also venture into planting and selling other fruits.

 For this to happen, we would be dependent on our existing local partners to keep purchasing our produce. Advertisement would be a very useful because to achieve all this goals, we would need profit. With the support of our partners, letters will be sent to major retail stores and hotels with our freshest irresistible products for evidence. Accounts of our reliability could also be included. At this time we would have acquired a larger farmland owned by the enterprise and employed more labourers. Graced Crops will also be open to training upcoming farmers. A successful Graced Crops farmer who has been using Graced Crops products will be able to demonstrate our model to our partners. Our most enthusiastic farmers will hold field days at which all farmers and upcoming farmers in the community will be invited to.

**CHAPTER 8: FINANCIAL AND ECONOMIC EVALUATION**

 It is assumed that one acre of land will yield 500 bags of 40kg (20 tonnes) of fresh grape after 3 months. In Nigeria, fresh grapes are sold in bags. A fully packed bag is about 40kg. It sells for #2,000 - #6,000 depending on the season. Revenue in cucumber farming can vary a great deal.

GRAPE FARMING PROFIT ANALYSIS SCENERIO 1

|  |  |
| --- | --- |
| Revenue  |  |
| 500 bags at #2000 each | #1,000,000 |
| **COST** |  |
| Rent of one acre of land | #10,000 |
| Fertilizer  | #150,000 |
| Manure | #10,000 |
| Pesticides  | #10,000 |
| Hybrid seeds | #20,000 |
| Drip irrigation | #150,000 |
| Knapsack sprayer | #5,000 |
| Tools  | #5,000 |
| Staking | #15,000 |
| Soil test | #5,000 |
| TOTAL | 380,000 |

|  |  |
| --- | --- |
| **PROFIT** |  |
|  | 620,000 |

GRAPE FARMING ANALYSIS SCENERIO 2

|  |  |
| --- | --- |
| **REVENUE** |  |
| 500 bags at #5,000 each | #2,500,000 |
| **COST** |  |
| Rent of one acre of land | #10,000 |
| Fertilizer | #150,000 |
| Manure | #10,000 |
| Pesticides | #10,000 |
| Hybrid seeds | #20,000 |
| Labour for 3 months | #90,000 |
| Drip irrigation | #150,000 |
| Knapsack sprayer | #5,000 |
| Farm tools | #5,000 |
| Staking | #15,000 |
| Soil test | #5,000 |
| TOTAL | #470,000 |
| **PROFIT** | #2,030,000 |

As shown in the table, when a bag of grapes is sold for #2,000, expected revenue is #1 million, when a bag is sold for #5,000, expected revenue is #2.03 million.

N/B: a bag of grapes could be sold for as high as #6,000 in an open market during the lean period.

# **CHAPTER 9: PROJECT EVALUATION TECHNIQUES**

 Graced Crops intends to produce high quality and processed grapes to our teeming customers here in Nigeria and beyond. Our aim as a business will be to ensure that we not only generate revenue but maximize profit as well and to this end, we intend to create multiple sources of income so as to have a solid bottom ground. We are in business to produce both food and raw materials for people and industries in commercial quantities. Our products and services are listed below:

1. Cultivation and sale of variety of grapes (organic and non-organic).
2. Whole sale/ retail of grapes.
3. Distribution services.
4. Export services.

**OBJECTIVE FOR GRACED CROPS IN GRAPE FARMING**

1. To increase production efficiency by 10% of a year.
2. To maintain profit margins at 20-25% by paying close attention to expenses and cost of grape farming.
3. To develop a product bases company whose goal is to exceed customers expectations.
4. To develop a sustainable farm.

# **CHAPTER 10: CONCLUSION**

Grapes are one of the most exotic fruits in the country. it is known to be one of the best fruits for overall health. Grapes are a very good source of vitamins A, C, K, B6, etc. Graced Crops wants to compete with the best in the industry, which is why asides from the fact that we have secured and acquired farmland, we intend to employ and train our employees to fit into the ideal picture of the best Grape Producers that

. **WE WANT TO BUILD**