FARM PLAN FOR 100 ACRE OF LAND

TITLE:	*The expansion of farm to include 6000 sq ft greenhouse, 10 Acre Ackee (4 ha), 10 acre citrus (4 ha), 5 acre H/pepper (2 ha)*
District:	Mount Ideal
Target date:	March, 2009
Company name:	Sample FromFarmToForm Company
Duration:	Seven Years
Project cost:	$ 9,218,742.35

INTRODUCTION/BACKGROUND

John Sample has a property in Mount Ideal which is a 900-acre plot of land (360 hectares). This area has good climatic conditions, ideal soil type, appropriate elevation and access to water. These factors make the area suitable for producing a variety of crops in a controlled environment and other wise.

Discussions with the processing manager at the factories and Exporters revealed that they are unable to meet their market demand due to inadequate production of some crops throughout Jamaica.

Lands which are now fallow could become productive, engaging young people and providing employment to those who have seen the despair and frustration of small farmers, and are not interested in agriculture could become involved after observing the successful production and marketing of these crops.

TOPOGRAPHY AND SOIL

The area comprises approximately more than 600 acres (240 hectares) of unutilized land. The soil capability class ranges from I to IV.

The topography of the area ranges from the flat to gentle and steep sloping and the soil in the area includes; #96 Wait a bit Clay Loam, #94- Carron Hall Clay Loam.

CLIMATE

The area enjoys very good rainfall. Majority of the rainfall occurs between mid-April to mid-December, with May, September and October, experiencing highest precipitation. Piped water is accessible in the dry periods and three concrete storage tanks are on the property to be used. Additionally, plastic tanks can be used as mini reservoirs for the storing of water and also two ponds are located on the property for use during the dry period. Temperature conditions are uniformed and most of the hotter months are from June to September, while the cooler months are from December to February. The air humidity is generally high.

MISSION STATEMENT

To produce food crops of a high quality with keen efficiency in order to contribute effectively to societal development and nation building.

VISION

Sample FromFarmToForm Company seeks to be the best producer in vegetables, by transforming the business of farming into a sustainable, diverse, dynamic and profitable enterprise that can aid in contributing significantly to the global gross domestic product.

BROAD OBJECTIVES

To utilized 100 acre of land on the property to establish and produce different types of crops in a control environment (green house)and open fields to satisfy the demanded and quality for agro processors in order to provide a real source of income and provide employment for people in the community.

The development should start with approximately 25 acres (10 hectares) of crops along with a greenhouse to ensure a unique position in the market place.

SPECIFIC OBJECTIVES

The specific objectives include:

1. To produce quality crop suitable for both domestic and global markets.

2. To be a profitable farming business, envisioning a positive gross income by the next two years.
3. To use technology to be the pioneer in innovative agricultural products.
4. To differentiate our service by offering excellent ad professional customer service whilst maintaining good employee relations.
5. To create employment for the community and support community projects once the profit is evident.
6. To integrate operational and management processes so as to promote environmental care and sustainability.
7. To communicate a rich corporate culture which encourages all persons and stakeholders involved in the business to show love, respect and practice honesty in conducting transactions.

MARKETING

Jamaica has proven to have a comparative advantage in the production of domestic food crop, due to the fertile soil and availability of water and other key resources for crop production. In the case of hot pepper, this product is used along with other seasonings to produce the world-famous jerk sauces and seasonings. This year the government announced its intention to promote the expansion of another 950 acres of hot peppers to meet demand. There is also a US$4 Million business plan for pepper mash and related products.

There is a good market for these domestic crops all year round. These crops are mainly marketed to the hotels, processors and export market.

The following markets are available;

- *Rita Symes-Hilton (Marketing Developments LTD.) Exporter*
- *King pepper factor*
- *Grays pepper factory (agro-processor)*
- *My dad's pepper*
- *Walker wood factory*
- *West Best factory (LTD.)*

Sample FromFarmToForm Companyrs will be utilizing cost leadership and differentiation strategy to gain market share. This company will seek to be proactive and quick to respond to market changes.

Owner/ CEO

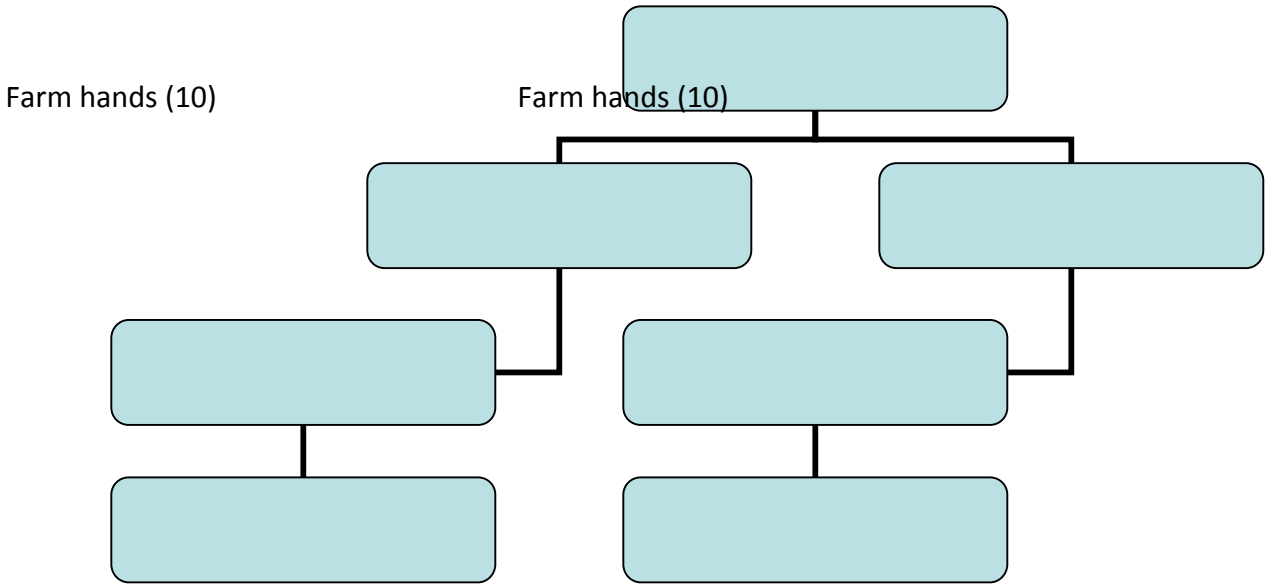
MANAGEMENT STRUCTURE

Manager (East) Manager (West)

The farm will initially operate with two managers, two administrative assistants and twenty farm hands.

Administrative Assistant (East) Administrative Assistant (West)

The structure is indicated below:



TRAINING

Five sessions will be conducted to improve the technical and practical skills among workers. These sessions include:

- Nursery management
- Land husbandry practices
- Integrated pest management
- Post harvest management
- Green house management

FINANCIAL PROJECTION

Cost Estimate 30’ x 200' Metal Greenhouse (all prices subjected to changes) Structure:

Project cost: $ 2,892,743.55

Item	Quantity	Unit	Unit Cost	Total
Cement	15	bag	$ 650.00	$ 9,750.00
Sand	2	m^3	$1,439.79	$ 2,879.58
Gravel	2.5	m^3	$1,439.79	$ 3,599.47
2" Galvz pipe hoop complete	42	pcs.	$5,800.00	$ 243,600.00
2" Galvz pipe post complete	42	pcs.	$3,800.00	$ 159,600.00
2" hoop vent/connectors	41	pcs.	$3,200.00	$ 131,200.00
1¼” angle iron	120	m	$ 380.00	$ 45,600.00
wire lock and channel	448	m	$ 350.00	$ 156,800.00
6 mil plastic 6M wide	820	M	$ 106.00	$ 86,920.00
50 mesh-sides	680	M	$ 156.00	$ 106,080.00
50 mesh-vent	72	M	$ 156.00	$ 11,232.00
Purlin/Guttering	120	m	$1,000.00	$ 120,000.00
1, *5/8* inch "T" Plant support	120	m	$ 380.00	$ 45,600.00
Support Wire	832.6	m	$ 70.00	$ 58,282.00
Grow Bags	500	bags	$ 198.00	$ 99,000.00
Irrigation System+ Pump+ Fertz Tank	1500	plants	$ 80.00	$ 120,000.00
Miscellaneous				$ 40,000.00
Subtotal Mails.				$ 1,428,143.05
Double Door and foot bath	1			$ 33,000.00
LABOUR	135	Man Days	$3,000.00	$ 405,000.00
TRANSPORTATION				
Irrigation + Installation	1	Item		$ 173,250.00
Subtotal				$ 2,051,393.05
GCT 16.5%				$332,325.67
Total				$2,383,718.72

Ha Production cost - Sweet pepper and Tomato

Activity	Unit Cost (m^2)	Description	Cost
A) Labour			
Clear Land	$ 3.30	one time	$ 924.00
Prepare Bed	$ 6.00	one time	$ 1,680.00
Install Irrigation System	$ 7.50	one time	$ 2,100.00
Transplant	$ 6.67	one time	$ 1,867.60
Hang Cord	$ 3.61	one time	$ 1,010.80
Tie Cord	$ 8.43	one time	$ 2,360.40
Drop Cord	$ 11.45	begin at 10wks/every 3 wks	$
Prune Leaves	$ 2.01	begin at 10wks/every 1 wks	$ 14,632.80
Prune flowers and suckers	$ 2.95	begin at 4wks/2 times p/wk	$ 42,864.00
Weeding	$ 2.00	every 2 wks	$
Spraying (labour)	$ 1.55	Weekly	$ 15,624.00
Irrigation (labour)	$ 0.40	Daily	$ 28,224.00
	Unit Cost (o/lb)		
Picking	1.03	.33 Ib per plant per week	$ 23,175.00
Wipe, Weigh, Sort, Crate	2.4	.33 Ib per plant per week	54,000.00
Packaging	0.55	per Ib.	12,375.00
Sub-total-A			$ 200,837.60
B) Material	$ 0.80	Daily	$ 46,196.24
Fungicide (matl)	$ 4.94	every week	$ 39,795.20
Nutrients			$ 30,000.00
Pesticide (matl)	$ 5.67	every 4 weeks	$ 14,288.40
Organic Matter	$ 90.00	1 truck load	$ 25,200.00
Ground cover	$ 83.00		$ 23,240.00
Cord <@L$200/kg.			$ 600.00
Packaging Material	$ 0.55	per Ib.	$ 12,375.00
Sub-total -B			$ 191,694.84
Total A+B			$ 392,532.44
Contingencies- 10%ofA&B			31564.13
Ghouse mainten-$60/sq.m.			16800.00
Supervision -20% of A&B			63128.26
Land Charqes/crop			5000.00
Sub-total - C			116,492.40
Total Operating Costs			$ 509,024.83

REVENUE FOR SWEET PEPPER AND TOMATO

Revenue for S/Pepper			
Harvest (24 weeks)	7,500	Ibs produced	
Price per pound	$ 115.00		$ 862,500.00+
Revenue for Tomato			
Harvest (24 weeks)	15,000	lbs produced	
Price per pound	$ 75		$ 1,125,000
		=	$1,987,500.00
Profit/Loss			$1,478,475.17

Production cost - Tomato

Activity	Unit Cost (m^2)	Description	Cost
A) Labour			
Clear Land	$3.30	one time	$924.00
Prepare Bed	$6.00	one time	$1,680.00
Install Irrigation System	$7.50	one time	$2,100.00
Transplant	$6.67	one time	$1,867.60
Hang Cord	$3.61	one time	$1,010.80
Tie Cord	$8.43	one time	$ 2,360.40
Drop Cord	$11.45	begin at 10wks/every 3 wks	$ 28,854.00
Prune Leaves	$2.01	begin at 10wks/every 1 wks	$ 14,632.80
Prune flowers and suckers	$2.95	begin at 4wks/2 timesjD/wk	$ 52,864.00
Weeding	$2.00	every 2 wks	$
Irrigation (labour)	$ 0.40	daily	$ 28,224.00
Spraying (labour)	$1.55	weekly	$15,624.00
			$150,141.60
	Unit Cost (o/lb)		
Picking	1.03	.6 Ib per plant per week	* $ 12,597.31
Wipe, Weigh, Sort, Crate	2.4	.6 Ib per plant per week	$29,352.96
Packaging	0.55	per Ib.	$67,26.72
Subtotal- Labour			$98,818.59
B) Material	Unit Cost (m^2)	Description	Cost
Fertilizer (matl)	$0.80	daily	$56,196.24
Fungicide (matl)	$4.94	every week	$49,795.20
Pesticide (matl)	$5.67	every 4 weeks	$ 14,288.40
Organic Matter	$ 90.00	1 truck load	$ 25,200.00
Ground cover	$ 83.00		$ 23,240.00
Packaging	$0.55	per Ib.	$6,726.72
Cord @ $200/kg			$ 600.00
Sub-total -B			$ 76,046.56
Total -A+B			$374,865.15
C) Other cost			
Contingencies-@10% of A&B			$37,486.52
Supervision @ 20% of A+B			$74,973.03
Gnhouse mainten-$60/sq.m			$16,800.00
Land Charges/crop			$10,000.00
Sub-Total-C			$139259.55
Total Operating Costs			$ 464,266.30
Revenue			
Harvest (24 weeks)	12,230.40	Ibs produced	
Price per pound	$ 75.00		$917,280.00
Profit/Loss			$453,013.70
Operating cost per pound	$ 42.04		
Profit / Loss per pound	$ 32.96		

PROJECT INPUTS FOR TWO HECTARES (5 acre) OF RED PEPPER

Project cost: $1,042,800

ITEMS	*UNIT*	*# OF UNIT*	*UNIT COST ($)*	*COST ($)*
Operational Cost				
Land clearing	*Man days*	*120*	*800.00*	*96,000.00*
Lining and digging of holes	*Man days*	*20*	*800.00*	*16,000.00*
Nursery operation	*Man days*	*16*	*800.00*	*12,800.00*
Planting	*Man days*	*40*	*800.00*	*32,000.00*
Supplying	*Man days*	*8*	*800.00*	*6,400.00*
Fertilizing	*Man days*	*14*	*800.00*	*11,200.00*
Weeding/Molding	*Man days*	*100*	*800.00*	*80,000.00*
Applying insecticides & fungicides	*Man days*	*130*	*800.00*	*104,000.00*
Reaping	*Man days*	*180*	*800.00*	*144,000.00*
Transport6 to form gate	*kg*	*79,545.46*	*0.5*	*39,772.73*
Sub-total				*542,172.73*
Material Inputs				
Seeds	*Ounces*	*10*	*1,000.00*	*10.000.00*

Seedling trays	*each*	*364*	*85.00*	*30,940.00*

Fertilizer;				
• *Sulphate of ammonia*	*Bags*	*70*	*1,000.00*	*70,000.00*
• *15-5-35*	*Bags*	*70*	*1,500.00*	*1-5,000.00*
• *Foliar*	*kg*	*10*	*250.00*	*2,500.00*
Insecticide				
• *Pegasus*	*Litre*	*10*	*3,500.00*	*35,000.00*
• *diazinon*	*Litre*	*10*	*1,200.00*	*12,000.00*
Fungicide				
• *Topcap*	*Litre*	*18*	*1,000.00*	*18,000.00*
• *Sancozeb*	*kg*	*36*	*500.00*	*18,000.00*
Sub-total				*301,440.00*

Contingency (10% of labour and material)	*86,361.27*
Grand total	*929,974.00*

Assumptions

- *25lb/plant*
- *3500 plants per acre*
- *1988.636kg/week (harvesting)*
- *Productive period 5 months reaping*
- *Average selling price $44.00/kg*

Yield (5months) = 39,772.72kg

Income Statement

Estimated revenue is 39772.72kg x $44.00 - $1,749, 999.86

Expenses is $949,974.00

Net profit is estimated revenue – expenses

Therefore $1,749,999.68 - $929,974.00 = $820,025.68

PROJECT INPUTS FOR FOUR HECTARES OF CITRUS

Project cost: *3,479,084.40*

ITEMS	*UNIT*	*# OF UNIT &DISCRIPTIOD*	*UNIT COST ($)*	*COST ($)*
		Operational Cost		
Land clearing	*Man days*	*200 one time*	*800.00*	*160,000.00*
Lining and digging of mounds	*Man days*	*100 one time*	*800.00*	*800,000.00*
Planting	*Man days*	*60 onetime*	*800.00*	*48,000.00*
Supplying	*Man days*	*10 one time*	*800.00*	*8,000.00*
Fertilizing	*Man days*	*28*	*800.00*	*22,400.00*
Weeding	*Man days*	*150*	*800.00*	*120,000.00*
Applying insecticides & fungicides	*Man days*	*130*	*800.00*	*104,000.00*
Reaping	*Man days*	*150*	*800.00*	*120,000.00*
Transport to form gate	*Boxes*	*5,000*	*50.00*	*250,000.00*
Sub-total				*1,632,400.00*
		Material Inputs		
Seedling	*each*	*1350 one time*	*250.00*	*337,500.00*

Fertilizer; • *Sulphate of ammonia* • *14-9-18* • *Foliar*	*Bags* *Bags* *kg*	*120* *140* *25*	*3,370* *4,500* *300.00*	*404,400.00* *630,000.00* *7,500.00*
Insecticide • *malathion* • *diazinon*	*Litre* *Litre*	*20* *20*	*1,250.00* *1,800.20*	*25,000.00* *36,004.00*
Fungicide • *alliette* • *Sancozeb*	*kg* *kg*	*60* *60*	*600.00* *500.00*	*36,000.00* *30,000.00*
Sub-total				*1,168,904*

Contingency (10% of labour and material)	*345,508.44*
Grand total	*3,455,084.40*

Assumptions

- *500 boxes /acre*
- *10 acres*
- *5,000 boxes /year*
- *Average selling price $630/box*

Yield (0ne year) = 5000 boxes

Income Statement

Estimated revenue /year is 5,000 X 630 =3,150,000.00

Expenses 3,455,084.40

Net profit is estimated revenue – expenses

Therefore 3,150,000.00 - 3455084.40 = - 305,084.40

However note carefully that some of these expenses are onetime expenses amounting to 1,353,500.00 and Citrus comes into full bearing in 6 years.

PROJECT INPUTS FOR FOUR HECTARES OF ACKEE

Project cost: *1,804,114.40*

ITEMS	*UNIT*	*# OF UNIT &DISCRIPTIOD*	*UNIT COST ($)*	*COST ($)*
Operational Cost				
Land clearing	*Man days*	*200 one time*	*800.00*	*160,000.00*
Lining and digging of holes	*Man days*	*45 one time*	*800.00*	*36,000.00*
Planting	*Man days*	*50 onetime*	*800.00*	*40,000.00*

Supplying	*Man days*	*10 one time*	*800.00*	*8,000.00*
Fertilizing	*Man days*	*28*	*800.00*	*22,400.00*
Weeding	*Man days*	*110*	*800.00*	*88,000.00*
Applying insecticides & fungicides	*Man days*	*150*	*800.00*	*120,000.00*
Reaping	*Man days*	*120*	*800.00*	*96,000.00*
Transport to form gate	*Boxes*	*2,000*	*50.00*	*100,000.00*
Sub-total				*670,400.00*
Material Inputs				
Seedling	*each*	*700 one time*	*150.00*	*105,000.00*

Fertilizer;				
• *Sulphate of ammonia*	*Bags*	*60*	*3,370*	*202,200.00*
• *14-9-18*	*Bags*	*120*	*4,500*	*540,000.00*
• *Foliar*	*kg*	*25*	*300.00*	*7,500.00*
Insecticide				
• *malathion*	*Litre*	*20*	*1,250.00*	*25,000.00*
• *diazinon*	*Litre*	*20*	*1,800.20*	*36,004.00*
Fungicide				
• *sancozeb*	*kg*	*60*	*500.00*	*30,000.00*
• *kccide*				

	kg	*60*	*400.00*	*24,000.00*
Sub-total				*864,704*

Contingency (10% of labour and material)	*164,010.00*
Grand total	*1,804,114.40*

<u>Assumptions</u>

- *200 boxes /acre*
- *10 acres*
- *2,000 boxes /year*
- *Average selling price $340/box*

Yield (0ne year) = 2000 boxes

<u>Income Statement</u>

Estimated revenue /year is 2,000 X 340 =680,000

Expenses is 1,804,114.40

Net profit is estimated revenue – expenses

Therefore 680,000 - 1,804,114.40 = -1,124,114.40

However note carefully that some of these expenses are onetime expenses amounting to 349,000 and Ackee comes into full bearing in 6 years.