

Guide

GUIDELINES FOR THE USE OF THE BUSINESS PLAN TOOL



ALOE VERA

Jordan



GUIDELINES FOR THE USE OF THE BUSINESS PLAN TOOL

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- 01 Introduction
- 02 How is the business plan organised?
- 03 Data used for the evaluation process
- 04 Economic and financial evaluation
- 05 Unit cost evaluation
“unit cost_leaf” and “unit cost-product”
- 06 Development opportunities for aloe vera business activities
- 07 Annex A



John Paul II Foundation Projects Department

The Foundation, with funds of the Italian Agency for Development Cooperation, coordinates a network of high-profile academic partners: from scientific research area, largescale distribution and national and international institutions, relies upon the work of a qualified team of economists, agronomists and market experts. It promotes a partnership-based approach supporting small farmers in reorganizing their production in a quality-oriented perspective to favour access to international markets.

REPORT AND GUIDE

Guides and Reports Small Farmer is a series of publications edited by the John Paul II Foundation Projects Department, which aim is to contribute to the knowledge and diffusion of the results obtained by the scientific-technical partners over their activities of technical assistance in the economic development and social inclusion programs of rural areas. The series is aimed at a systematisation of both, the theoretical and methodological aspects, in order to support their replicability and it's intended for small producers, cooperatives, agricultural enterprises and stakeholders.

The Guides and Reports share a precious scientific-technical know-how and they are intended to promote the human, social and economic development in the most disadvantaged communities around the world, thus supporting the fight to poverty.

Guide. This series aims to present a summary of the tools elaborated with the project, reporting the methodology and the main outcomes and outputs obtained. It is a summary of the documents produced by all the experts involved in each one of the activities. The aim of the document is to provide clear information or instructions and usable tools to all interested beneficiaries and stakeholders.

The others series:

- Report
- Systematisation documents.
- Product promotional brochure

SMALL FARMERS Quality Management System

The Quality Management System is a system of quality standards applied to agricultural production from plant cultivation to post-harvest management. The QMS is part of an overall framework direct to promote synergies among several products as, from plant Dates, Cherries, Apricots, Aloe vera and to foster network and cooperation between Small Farmers engaged in the application of a re-organization strategy. The QMS is based on:

- An agroecological production approach promoting a Quality Management System, which focuses on product quality enhancement to respond to the international market demand while protecting the delicate balance between trees, plants and surrounding ecosystem.
- The promotion of cultivation-related traditions and local plant varieties, ensuring delivery of a high-quality and sustainable product.
- Ethical principles to enable inclusive and efficient agricultural system for farmers and workers involved in the value chain, which aims to provide support for access to more profitable markets by promoting economic and social development in the most disadvantaged communities.





01

INTRODUCTION

This guideline introduces the Business Plan elaborated within the project “Promozione della filiera agribusiness dell’Aloe Vera attraverso l’implementazione di un progetto pilota a sostegno delle cooperative di piccoli produttori nell’area di Karak in Giordania”, implemented by FGPII and financed by the Italian Agency for Development Cooperation (AICS). It represents a narrative document of the Business Plan tool (Annex A), providing a description of its structure, an analysis of the results and any recommendations to stakeholders.

The Business Plan aims to facilitate the planning and management of small farming and processing activities of Aloe Vera that have been developed during the project.

It represents a basic model, simple and flexible, that can be used by both small-scale productive activities and more structured companies. Moreover, the model aims to be replicable also in different contexts and areas.

In any case, the main objective is to provide a tool that helps production units to have a more entrepreneurial vision.

In particular, it combines a dual function:

- **THROUGH THE ANALYSIS OF COSTS AND REVENUES ON A LONG TERM, IT DESCRIBES AND IDENTIFIES THE STATE OF THE ART AND THE BUSINESS OPPORTUNITIES. THE RESULTS OUTLINE TECHNICAL AND ECONOMIC FEASIBILITY;**
- **AIMING AT THE INTERNAL MANAGEMENT CONTROL, IT IS REPORTED THE UNIT COST ANALYSIS FOR EACH PRODUCT.**

In addition, this business plan is structured to provide information on the cultivation phase and processing. For this reason, the toll could be used on a modular way according the effective phases carried out by the enterprise.

The evaluation is generally based on local field data, collected by the FGPII staff with the supervision of ARCO team, through the conduction of semi-structured interviews with farmers and associations. When not available, literature data have been used. Once collected, data have been processed in order to create an average data representative of multiple local activities.

A close-up photograph of a green cactus stem with a small, yellow, textured flower bud. The stem is thick and has small, sharp spines. The background is blurred, showing more of the cactus.

02

HOW IS THE
BUSINESS PLAN
ORGANISED?

The Business Plan is essentially composed by three parts:

- **TECHNICAL DATA: SHEETS CALLED “ALOE FARMING”, “ALOE PROCESSING” AND “FINAL PRODUCTS_CALCULATION”.**

In these sections, technical data for cultivation and processing phases are identified. Based on these, investment costs and annual costs were calculated. The sheet called “final_products_calculation” reports the number of finished products annually obtained, basing on the amount of raw materials used every month.

- **ECONOMIC AND FINANCIAL EVALUATION: “COSTS”, “REVENUES” AND “LOSS AND PROFITS STATEMENT” SHEETS.**

All the annual costs and revenues are identified, classified and analysed in order to assess the net income.

- **UNIT COSTS EVALUATION: “UNIT COST_LEAF” AND “UNIT COST_PRODUCTS”.**

In these sections the cost per unit (kg) is calculated for any final products. The aim is to analyse how the single cost items affect the total production cost in order to identify the right price.





03

DATA USED FOR THE EVALUATION PROCESS

The present evaluation considers an agricultural area of 0.5 donum with a cultivation of 475 plants and a production capacity of 10 leaves per year per plant, with an aloe leaves potential production of 4750. However, in order to consider a realistic scenario we decided to consider a quantity of 45 leaves per plant actually processed. Of these, 30 are sold as leaves (after a small pre-treatment) and 15 are processed for gel extraction.

In regards to the labour costs an average hourly cost of 1.63 JOD have been considered, with the involvement of 2 farmers for the land preparation and 1 farmer for the leaf collection and field management.

At the leaf processing stage (for gel extraction and preparation of cosmetic products), a yield of 400 g per leaf was considered. Basing on 15 leaves processed per month, we calculate an annual gel production of 72 kg (6 kg/month), against a potential production of 1900 kg per year.



STAGE OF ALOE FARMING

Main goal: calculating the annual production costs of aloe leaves

TECHNICAL DATA - ALOE FARMING

AREA PLANTED WITH ALOE	DONUM	0,5
PLANTS PER DONUM	NR	950
TOTAL PLANTS COLTIVATED	NR	475
CYCLE OF LEAVES HARVEST	NR	2
ARARAGE WEIGHT OF A LEAF	KG	0,4
ANNUAL LEAF PRODUCTION	KG	1.900
ANNUAL LEAF PRODUCTION	NR	4.750
LEAF PRODUCTION/MONTH (POTENTIAL)	NR	396
FERTILIZER AND COMPOST PER DONUM PER YEAR	KG	40
WATER CONSUMPTION FOR IRRIGATION	M3/WEEK	1,5
WATER CONSUMPTION FOR IRRIGATION	M3/YEAR	78
IRRIGATION SYSTEM	YES/NO	YES
MINUMIM WAGE FOR FARMER/MONTH	JOD	265
WORKING HOURS/MONTH	HOUR	163
MINIMUM HOURLY LABOUR COST	JOD/H	1,63

NR OF FARMERS INVOLVED

LAND PREPARATION AND PLANTING (1 TIME)	NR	2
IRRIGATION SYSTEM INSTALLATION (1 TIME)	NR	2
ALOE TREATMENT (WEEDING + FERTILIZER) (1 TIME/TRIMESTER)	NR	1
HARVESTING	NR	1

WORKING HOURS PER PHASE

LAND PREPARATION AND PLANTING (1 TIME)	HOUR	43
IRRIGATION SYSTEM INSTALLATION (1 TIME)	HOUR	30
ALOE TREATMENT (WEEDING + FERTILIZER) (1 TIME/TRIMESTER)	HOUR	21
HARVESTING (HOURS/MONTH)	HOUR	2
PACKAGING FOR ALOE LEAVES IN 1 YEAR (30 CM/LEAF)	M	108

Table 1. Data-base for the Business Plan elaboration



STAGE OF ALOE PROCESSING AND COSMETICS PRODUCTION

Goal: calculating the annual production cost of Aloe gel and costs for the related products

Assumption: we consider the transformation of 45 leves/month with a production of 6 kg of gel/month

TECHNICAL DATA - ALOE PROCESSING

OPERATING TIME OF THE PROCESSING UNIT (POTENTIAL)	DAY	245
LEAVES PER DAY (POTENTIAL)	NR	19
ANNUAL LEAF PRODUCTION (POTENTIAL)	NR	4.750
MONTHLY LEAF PRODUCTION (POTENTIAL)	NR	396
ACTUAL LEAF CONSUMPTION/MONTH	NR	45
GEL YELD	G	400 G/ LEAF
GEL YELD/LEAF	KG	0,400
NO. OF LEAVES TO PRODUCE 1 KG OF GEL	NR	2,5
POTENTIAL GEL PRODUCTION/YEAR	KG	1.900
POTENTIAL GEL PRODUCTION/MONTH	KG	158
ACTUAL GEL PRODUCTION/MONTH	KG	6
ACTUAL LEAF SALE/MONTH	NR	30
ANNUAL LEAF SALE	NR	360
NO. OF HOURS TO PROCESS 10 LEAVES	HOUR	2,5
NO. OF HOURS TO PROCESS 45 LEAVES (PREPARATION OF 30 LEAVES FOR SALE AND EXTRACTION PF GEL FOR 15 LEAVES)	HOUR	8
ACTUAL GEL PRODUCTION/YEAR	KG	72

ANNUAL CONSUMPTION OF RAW MATERIALS

-BEE VAX	KG	18,0
-SUNFLOWER OIL	L	50,4
-PRESERVATIVES	G	552,0
-LEMON OIL	L	0,6
-ESSENTIAL OIL	L	0,6
-VIT E	KG	0,9
-ALMOND OIL	L	1,2
-KAAB AL-GHAZAL POWDER	KG	0,08
-GLYCERINE	KG	12,0
-NATURAL GELATINE POWDER	KG	0,0
-HONEY	KG	0,5
QUALIFIED WORKERS	NR	2
PACKAGE BOTTLE (JAR) FOR FACE CREAM 15 ML	NR	2829
PACKAGE BOTTLE (JAR) FOR FACE CREAM 30 ML	NR	252
PACKAGE BOTTLE 50 ML	NR	1287
PACKAGE BOTTLE 150 ML	NR	70
PACKAGE BOTTLE 250 ML	NR	42
HAIR SPRAY BOTTLE 150 ML	NR	880
HAIR SPRAY BOTTLE 250 ML	NR	432
FILM FOR SOAP (15 CM PER SOAP)	M	36
TOT. PACKAGING IN 1 YEAR	NR	5828

Basing on a production of 6 kg of gel, seven are the aloe-based finished products, as described in the “final products_calculation” sheet:

- 1) ANTI-AGING GEL;
- 2) ALOE FACE CREAM;
- 3) FOOT CREAM;
- 4) HAIR OIL;
- 5) BODY LOTION,
- 6) HAIR SPRAY;
- 7) ALOE SOAP;

According to the data provided by FGPII, table 2 reports the amount of raw materials used per month in the preparation of the final products. The process starts with the extraction of 6 kg of Aloe Gel: a portion (2.8 kg) represents a finished product; the other portion (3.1 kg) is used as semi-finished product for the production of cosmetics.

The annual productions per product are shown in table 3.

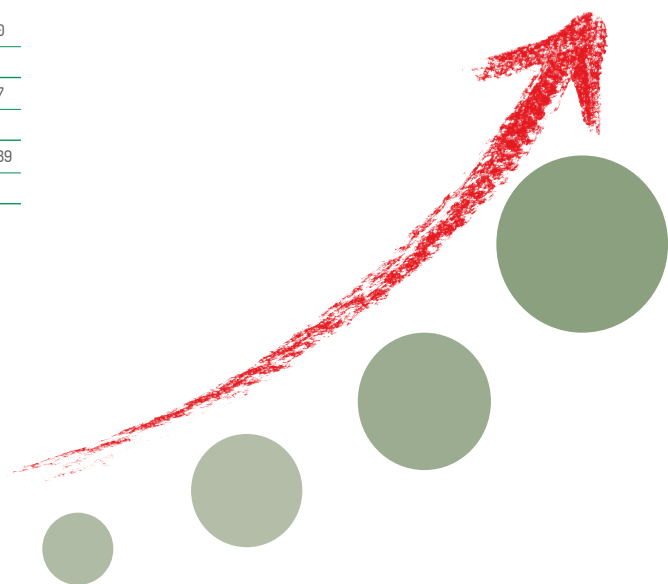
OUTPUT											
INPUT		ALOE TREATMENT AND GEL EXTRACTION	ALOE GEL	FACE CREAM	FOOT CREAM	HAIR OIL	BODY LOTION	HAIR SPRAY	SOAP	AMOUNT (KG) PER MONTH	AMOUNT (KG) PER YEAR
	HOURS	8	2	4	4	4	4	4	4	26	399
	UNIT										
BEE WAX	KG			0.5	0.5		0.5			1.50	18.0
ALOE GEL	KG	6	2.85	0.5	0.5	0.40	0.5	1	0.25	6.00	72.0
SUNFLOWER OIL	LITER			1	1	1	1.2			4.20	50.4
VIT E	KG			0.025	0.025		0.025			0.08	0.9
ALMOND OIL	LITER			0.05			0.05			0.10	1.2
PRESERVATIVES (SODIUM BENZOATE)	KG		0.021	0.002	0.002	0.04	0.002			0.05	0.6
ESSENTIAL OIL/ROSE WATER	LITER			0.006		0.03			0.03	0.07	0.6
LEMON OIL	LITER				0.05					0.05	0.6
KAAB AL-GHAZAL POWDER	KG				0.006					0.006	0.08
BASIL WATER	LITER							1		1.00	12.0
GLYCERINE	KG								1	1.00	12.0
NATURAL GELATINE POWDER	KG		0.21							0.00	0.0
HONEY	KG								0.05	0.05	0.5
WEIGHT FOR PRODUCT	KG	6	3.09	2.08	2.08	1.47	2.28	2.00	1.33	14.09	

SIZES OF PACKAGING	LARGE (ML)	50	530	250	50	250	50
	SMALL (ML)	15	15	150		150	
PACKAGING IN 1 MONTH	LARGE	21		3	46	36	27
	SMALL	61.7	97	139	6		73
PACKAGING IN 1 YEAR	LARGE	252	0	42	546	432	239
	SMALL	740	1163	1667	70	0	880

Table 2. Inputs and outputs calculation per month and year

PRODUCTS- ANNUAL PRODUCTION		
ALOE GEL	KG	37.02
FACE CREAM	KG	25.00
FOOT CREAM	KG	25.00
HAIR OIL	L	17.64
BODY LOTION	KG	27.32
HAIR SPARY	L	24.00
SOAP	KG	15.96
		171.95

Table 3. Annual productions





ECONOMIC AND FINANCIAL EVALUATION

04

In order to assess the economic viability of aloe cultivation and processing, the annual costs and revenues have been identified and analysed.

Costs

Investment costs (multi-year) and annual costs were identified for both the cultivation and processing phases. All the investment costs (necessary to conduct this type of activity) have been considered, even if they are not currently incurred by the associations as they are financed. As already mentioned, the objective is in fact to show how a company operating in this

market should act and what are the related challenges. Annual costs, on the other hand, were further classified into direct and indirect costs. This classification of annual costs is used to assess the company's ability to produce profit and sustain fixed costs.

INVESTMENT COSTS			ANNUAL COSTS		
	JOD			JOD	
PURCHASE OF THE FIELD			LABOUR COST FOR ALOE TREATMENTS (WEEDING + FERTILIZE)	137	
ALOE PLANTS	5		LABOUR COST FOR HARVESTING	39	
AGRICULTURE INFRASTRUCTURE (IRRIGATION SYSTEM)	250	10	TOTAL ANNUAL LABOUR COST FOR FIELD PHASE	176	
MACHINES AND TOOLS (SPADES, HOES, MACHETE, WATER TANK OR OTHER DURABLE TOOLS)	200	3	ANNUAL COST FOR FERTILIZER AND OTHER ALOE TREATMENTS	80	
LABOUR COST FOR LAND PREPARATION AND PLANTING PROCESS	140	5	ANNUAL COST FOR WATER SUPPLY	468	
LABOUR COST FOR IRRIGATION SYSTEM INSTALLATION	98	5	ELECTRIVITY CONSUMPTION FOR IRRIGATION SYSTEM	120	
TOTAL INVESTMENT COST	687		ANNUAL COST FOR PACKAGING FOR ALOE LEAVES	10.8	
			TOTAL ANNUAL COST	854	

Table 4. Investment and annual costs for Aloe cultivation

INVESTMENT COSTS			ANNUAL COSTS		
	JOD	USEFUL LIFE		JOD	
INFRASTRUCTURE			RENTAL FEE OF THE LAB		
STRUCTURAL ADJUSTMENT OF THE PRODUCTION FACILITIES (AIR CONDITIONING, FLOOR AND WALL TILING, KITCHEN TOTALLY IN STAINLESS STEEL)	2200		COST OF LABOUR PER HOUR	1.67	
GREENHOUSE (30X5 M)	1030		ANNUAL LABOUR COST	1333	
TOTAL	3230	10	COST OF RAW MATERIALS	455.65	
ALOE GEL PROCESS UNIT			BEE WAX	162.0	
GAS STOVE (GAS CYLINDER INCLUDED)	300		SUNFLOWER OIL	50.4	
STAINLESS-STEEL TABLE	200		PRESERVATIVE	11.0	
PEALER AND OTHER CUTTING TOOLS + SILICON SPOONS	15		LEMON ESSENCE	12.5	
5 STAINLESS STEEL BOWL	28		ESSENTIAL OIL	63.0	
MIXER/BLENDER	35		VIT E	45.0	
PH METER	67		ALMOND OIL	9.6	
LAB BALANCE	30		NATURAL GELATINE POWDER (XANTHAN GUM?)	0.0	
TOTAL	675	5	GLYCERINE	24.0	
TOOLS FOR COSMETICS PRODUCTION			HONEY	5.4	
KNEADING MACHINE (PLANETARIA)	390		KAAB AL GHAZAL (3 JOD PER 7 G)	32.71	
FOOD THERMOMETER	40		SOAP CUTTER + MOULDS (1 SET PER YEAR)	40.00	
FRIDGE 300/350 JOD	350		GAS FOR PROCESSING	0	
HOT SEALING MACHINE FOR PACKAGING	20		ELECTRICITY	0	
TOTAL	800	5	WATER	0	
COSTS FOR REGISTRATION (COMPANY AND PRODUCTS)			DPI MATERIAL	122	
	960		PACKAGING ANNUAL COSTS	3.858,1	
TOTAL INITIAL INVESTMENTS	5665	2	BOTTLE (JAR) FOR FACE CREAM 15 ML	1131.8	
			BOTTLE (JAR) FOR FACE CREAM 30 ML	113.4	
			BOTTLE 50 ML	707.8	
			BOTTLE 150 ML	572.0	
			BOTTLE 250 ML	324.0	
			PLASTIC FILM FOR SOAP (5 JOD/50 M)	3.6	
			SPRAYER BOTTLE FOR HAIR SPRAY (150 ML)	660.0	
			SPRAYER BOTTLE FOR HAIR SPRAY (250 ML)	345.6	
			LABELS (110 JOD/500 LABELS)	1.282	
			ANNUAL TRADING COSTS (RETAILING CHAIN, FREIGHT COSTS, ADVERTISEMENT VIA SOCIAL MEDIA)	1080	
			PRODUCTION CERTIFICATION (FROM THE THIRD YEAR)	350	
			TOTAL ANNUAL COSTS	8521	

Table 5. Investment and annual costs for Aloe processing phase

Revenues

Annual revenues were calculated considering current prices and assuming the sale of all the products obtained (table 3). In particular, as shown in table 6, the sale of 30 leaves per month was considered, together with the sale of aloe gel based products obtained from the extraction of 6 kg of gel per month.

Similar to the cost elaboration, a projection of revenues over the next 10 years was provided (table 6).

JOD CURRENCY	YEAR									
REVENUES	1	2	3	4	5	6	7	8	9	10
ALOE LEAVES	183	186	189	192	195	198	201	204	208	211
ALOE GEL WITH GELATINE (50 ML)	2.257	2.293	2.330	2.367	2.405	2.443	2.482	2.522	2.562	2.603
ALOE FACE CREAM (30 ML)	1.024	1.041	1.057	1.074	1.091	1.109	1.126	1.144	1.163	1.181
ALOE FACE CREAM (15 ML)	3.544	3.601	3.658	3.717	3.776	3.837	3.898	3.960	4.024	4.088
ALOE FOOT CREAM (15 ML)	5.080	5.161	5.244	5.328	5.413	5.500	5.588	5.677	5.768	5.860
ALOE BODY LOTION (50 ML)	3.331	3.385	3.439	3.494	3.550	3.607	3.664	3.723	3.782	3.843
ALOE HAIR OIL (250 ML)	212	216	219	222	226	230	233	237	241	245
ALOE HAIR OIL (150 ML)	283	287	292	297	301	306	311	316	321	326
SPRAY FOR HAIR (250 ML)	1.756	1.784	1.812	1.841	1.871	1.901	1.931	1.962	1.993	2.025
SPRAY FOR HAIR (150 ML)	2.682	2.725	2.769	2.813	2.858	2.904	2.950	2.997	3.045	3.094
ALOE HAND SOAP	243	247	251	255	259	263	268	272	276	281
SALES OF ALOE BASED PRODUCTS	20.595	20.925	21.260	21.600	21.945	22.296	22.653	23.016	23.384	23.758

Table 6. Annual revenues



Economic results

This section compares costs with revenues in order to assess the annual net profitability of aloe production and processing activity. Please note that this evaluation bases on the assumption that all products are sold.

As shown in table 7, with an initial investment of about 6300 JOD, net profits are attractive from the first year.

JOD CURRENCY	YEAR											
	0	1	2	3	4	5	6	7	8	9	10	
PROFIT AND LOSS STATEMENT												
REVENUES		20.595	20.925	21.260	21.600	21.945	22.296	22.653	23.016	23.384	23.758	
DIRECT COSTS		7.907	8.034	8.162	8.293	8.426	8.561	8.698	8.837	8.978	9.122	
INDIRECT OPERETING COSTS		1.617	1.643	2.037	2.069	2.102	2.136	2.170	2.205	2.240	2.276	
OPERATIONAL CASH FLOW (EBITDA)		11.070	11.247	11.060	11.237	11.417	11.600	11.785	11.974	12.166	12.360	
AMORTISATION		1.237	1.237	757	690	690	643	643	643	643	643	
PROVISION (RESERVES)												
OPERATING PROFIT (EBIT)		9.833	10.010	10.303	10.547	10.727	10.957	11.142	11.331	11.523	11.717	
FINANCIAL MANAGEMENT		0	0	0	0	0	0	0	0	0	0	
EXTRAORDINARY MANAGEMENT		0	0	0	0	0	0	0	0	0	0	
EARNING BEFORE TAX (EBT)		9.833	10.010	10.303	10.547	10.727	10.957	11.142	11.331	11.523	11.717	
JORDAN TAX		1.967	2.002	2.061	2.109	2.145	2.191	2.228	2.266	2.305	2.343	
NET INCOME(NET PROFIT)		7.867	8.008	8.243	8.437	8.581	8.765	8.914	9.065	9.218	9.374	
CASH FLOW												
NET CASH FLOW		-6.352	9.104	9.245	9.000	9.128	9.272	9.408	9.557	9.708	9.861	10.017
DISCOUNTED CASH FLOW		-6.352	8.670	8.386	7.774	7.510	7.265	7.021	6.792	6.571	6.357	6.149

Table 7. Economic and cash flow analysis

In addition, this section provides two important findings:

1. A Payback Period (PBP) of 6 months: it represents the amount of time required for cash inflows generated by the project to offset its initial cash outflow. It thus means that in about 6 month the initial investment might be recovered;
2. The break even point (BEP) turnover: this is the point where total revenues (from sales) equal total costs. Our BEP turnover is 4634 JOD: above this figure a profit is produced. Our revenues reach about 20,000 JOD in the first year, so we are well over the profitability threshold.

SIMPLE PAYBACK TIME FORMULA			
TOT. INVESTMENTS	6 352	TOTAL FIXED COSTS	2 855
ANNUAL COSTS	10 762	REVENUES - VARIABLE COSTS	10 762
ANNUAL REVENUES	20 595	(CONTRIBUTION MARGIN)	
SIMPLE PAYBACK TIME (YEARS)	0.65	BEP (BREAK EVEN POINT) TURNOVER	4 634

Table 8. PBP and BEP turnover calculation



05

UNIT COSTS EVALUATION

'UNIT COST_LEAF' AND 'UNIT COST_PRODUCT'

Within these two sections the production cost per unit has been elaborated both for the cultivation and the processing phases.

A unit cost is a total expenditure incurred by a company to produce, store, and sell a unit of a particular product. In our case, the cost was calculated per aloe leaf and per kg of the different aloe gel-based products.

This accounting measure includes all of the fixed and variable costs associated with their production.

Unit cost is a crucial cost measure in the operational analysis of a company: it represents a quick way to check if that company is producing efficiently. In addition, this analysis enables to identify a profitable price. According to the available data, the productions of Aloe Vera oil, sprayer and hand soap products are still uneconomic.



06 DEVELOPMENT
OPPORTUNITIES
FOR ALOE VERA
BUSINESS ACTIVITIES

This work tried to model the cost of producing Aloe Vera with the aim of providing a more structured vision of the activities in terms of management and organization.

The economic-financial analysis provides interesting data, especially in view of potential developments that could affect the aloe production activities. In particular, we can observe that:

- THE EVALUATIONS CONCERN THE POSSIBILITY OF SELLING ALL THE PRODUCTS OBTAINED;
- THE ANALYSIS IS BASED ON AN ANNUAL PRODUCTION OF 72 KG OF GEL, OUT OF A POTENTIAL PRODUCTION CAPACITY OF 1900 KG;
- THE INITIAL INVESTMENT IS RECOVERED IN LESS THAN 1 YEAR;
- THE BREAK EVEN POINT TURNOVER IS AROUND 4,600 JOD.

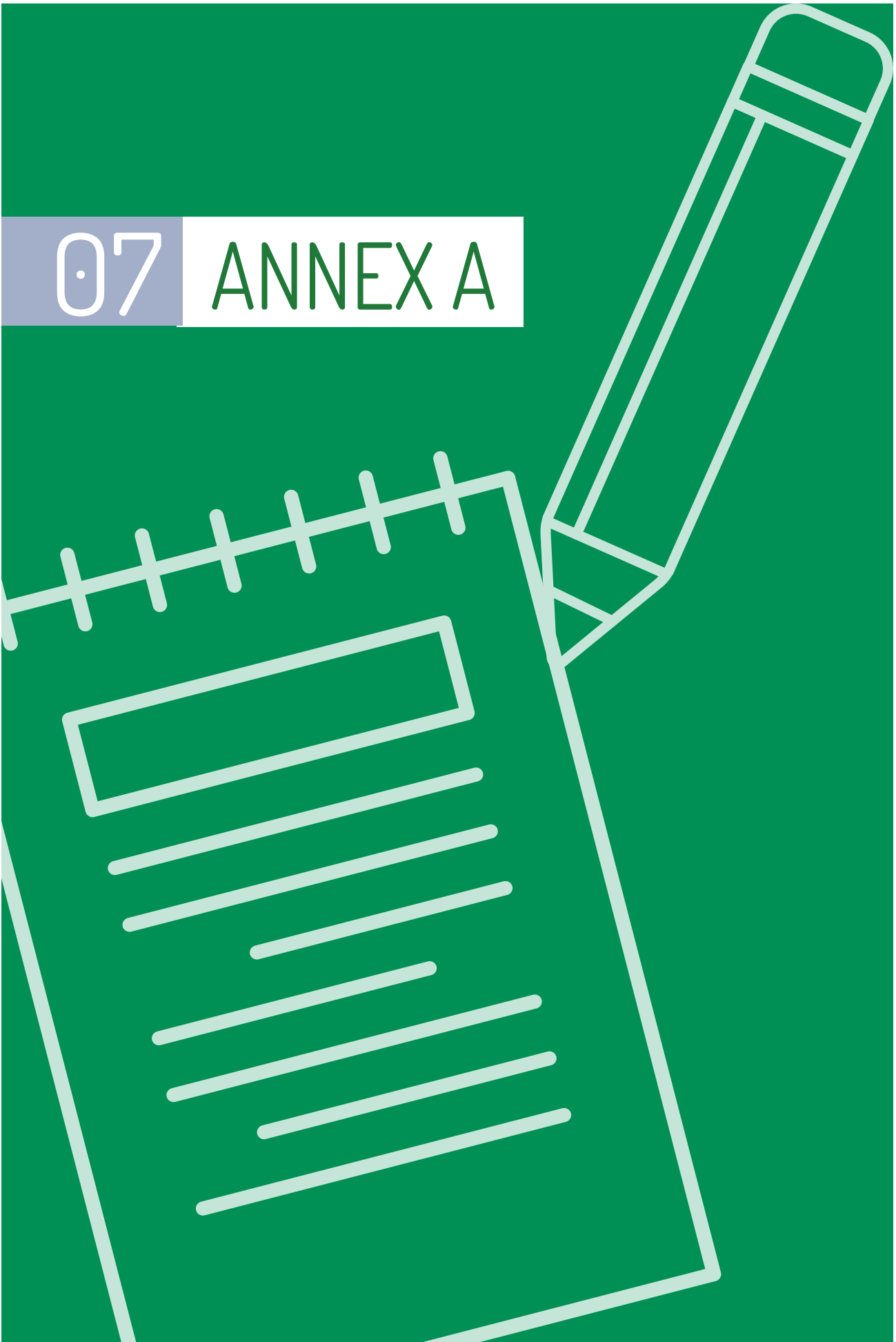


On the basis of this assessment, we can state that Aloe Vera production represents an interesting business with a considerable development potential. In addition, it could represent a good opportunity for young and women entrepreneurs, as it is a new market with a value chain that has yet to be fully established.



07

ANNEX A



ALOE FARMING

Stage of Aloe farming

Main goal: calculating the annual production costs of aloe leaves

Technical data - Aloe farming

Area planted with Aloe	donum	0,5
Plants per donum	nr	950
Total plants cultivated	nr	475
Cycle of leaves harvest	nr	2
Average weight of a leaf	kg	0,4
Annual leaf production	kg	1900
Annual leaf production	nr	4.750
Leaf production/month (potential)	nr	396
Fertilizer and compost per donum per year	kg	40
Water consumption for irrigation	m3/week	1,5
Water consumption for irrigation	m3/year	78
Irrigation system	yes/no	yes
Minimum wage for farmer/month	JOD	265
working hours/month	hour	163
minimum hourly labour cost	JOD/h	1,63
nr of farmers involved		
land preparation and planting (1 time)	nr	2
irrigation system installation (1 time)	nr	2
aloe treatment (weeding + fertilizer) (1 time/trimester)	nr	1
harvesting	nr	1
working hours per phase		
land preparation and planting (1 time)	hour	43 5.3 days
irrigation system installation (1 time)	hour	30 3.7 days
aloe treatment (weeding + fertilizer) (1 time/trimester)	hour	21 2.6 days
harvesting (hours/month)	hour	2
Packaging for aloe leaves in 1 year (30 cm/leaf)	m	108

Investment costs	JOD	Useful life
Purchase of the field	-	
Aloe plants	-	5
Agriculture infrastructure (irrigation system)	250	10
Machines and tools (spades, hoes, machete, water tank or other durable tools)	200	3
labour cost for land preparation and planting process	140	5
labour cost for irrigation system installation	98	5
Total investment cost	687	

Annual costs	JOD
Labour cost for aloe treatments (weeding + fertilizer)	137
Labour cost for harvesting	39
<i>Total annual labour cost for field phase</i>	<i>176</i>
Annual costs for fertilizer and other Aloe treatments	80
Annual cost for water supply	468
Electricity consumption for irrigation system	120
Annual Cost for packaging for aloe leaves (5 JOD/50 l)	10,8
Total annual costs	854

JOD	cost/hour	hours
70	1,63	43
50	1,67	30
35	1,67	21

ALOE PROCESSING

Stage of Aloe processing and cosmetics production

Goal: calculating the annual production cost of Aloe gel and costs for the related products

Assumption: we consider the transformation of 45 leaves/month with a production of 6 kg of gel/month

Technical Data - Aloe processing

Operating time of the processing unit (potential)	day	245
Leaves per day (potential)	nr	19
Annual leaf production (potential)	nr	4.750
Monthly leaf production (potential)	nr	396
Actual leaf consumption/month	nr	45
Gel yield	g	400 g/ leaf
Gel yield/leaf	kg	0,400
No. of leaves to produce 1 kg of gel	nr	2,5
Potential gel production/year	kg	1.900
Potential gel production/month	kg	158
Actual gel production/month	kg	6
Actual leaf sale/month	nr	30
Annual leaf sale	nr	360
No. of hours to process 10 leaves	hour	2,5
No. of hours to process 45 leaves (preparation of 30 leaves fr	hour	8
Actual gel production/year	kg	72
<i>Annual consumption of raw materials</i>		
-bee vax	kg	18
-sunflower oil	l	50,4
-preservatives	g	552
-lemon oil	l	0,6
-essential oil	l	0,63
-Vit E	kg	0,9
-Almond oil	l	1,2
-kaab al-ghazal powder	kg	0,08
-glycerine	kg	12
-natural gelatine powder	kg	0
-honey	kg	0,45
Qualified workers	nr	2
package bottle (jar) for face cream 15 ml	nr	2829
package bottle (jar) for face cream 30 ml	nr	252
package bottle 50 ml	nr	1.287
package bottle 150 ml	nr	70
package bottle 250 ml	nr	42
Hair spray bottle 150 ml	nr	880
Hair spray bottle 250 ml	nr	432
film for soap (15 cm per soap)	m	36
tot. Packaging in 1 year	nr	5828

INVESTMENTS COSTS

	JOD	Useful life
infrastructure		
Structural adjustment of the production facilities (air conditioning, floor and wall tiling, kitchen totally in stainless steel)	2200	
Greenhouse (30x5 m)	1030	
total	3230	10
aloe gel process unit		
Gas stove (gas cylinder included)	300	
stainless-steel table	200	
pealer and other cutting tools + silicon spoons	15	
5 stainless steel bowl	28	
Mixer/blender	35	
Ph meter	67	
Lab balance	30	
total	675	5
Tools for cosmetics production		
Kneading machine (planetaria)	390	
Food thermometer	40	
Fridge 300/350 JOD	350	
Hot sealing machine for packaging	20	
Total	800	5
Costs for registration (company and products)	960	2
TOTAL INITIAL INVESTMENTS	5665	

Financial data		
Discount rate	5%	
Average inflation rate (projections)	1,60%	
Fiscal data		
Corporate Income Tax Jordan	20%	

Costs of raw materials	unit	JOD
Bee wax	kg	9
Sunflower oil	l	1
Preservative (sodium benzoate)	g	0,02
Lemon essence	l	20,83
Essential oil	l	100
Vit E	kg	50
Almond oil	l	8
Natural gelatine powder	kg	16
Glycerine	kg	2
Honey	kg	12
kaab al ghazal (3 JOD per 7 g)	kg	428,57

Detailed labour costs per phase		
minimum hourly labour cost	JOD	1,67
qualified workers	nr	2
<i>labour costs per phase per month</i>		
labour cost for gel extraction process	JOD	28
labour cost for anti age gel production	JOD	6,68
labour cost for face cream	JOD	13,36
labour cost for foot cream	JOD	13,36
labour cost for hair oil	JOD	13,36
labour cost for body lotion	JOD	13,36
labour cost for hair spray	JOD	13,36
labour cost for soap	JOD	13,36
		1.333

Bottle (jar) for face cream 15 ml **0.4 JOD**
 Bottle (jar) for face cream 30 ml **0.45 JOD**
 bottle 50 ml **0.55 JOD**
 bottle 150 ml **0.65 JOD**
 bottle 250 ml **0.75 JOD**
 plastic film for soap 50mt **5 JOD**
 sprayer bottle for hair spray (150 ml) **0.75 JOD**
 sprayer bottle for hair spray (250 ml) **0.8 JOD**

ANNUAL COSTS	
	JOD
Rental fee of the lab	
Cost of labour per hour	1,67
Annual labour cost	1333
Cost of raw materials	455,65
Bee wax	162
Sunflower oil	50,4
Preservative	11,04
Lemon essence	12,5
Essential oil	63
Vit E	45
Almond oil	9,6
Natural gelatine powder (xanthan gum?)	0
Glycerine	24
Honey	5,4
kaab al ghazal (3 JOD per 7 g)	32,71
Soap cutter + moulds (1 set per year)	40,00
Gas for processing	0
Electricity	0
Water	0
DPI material	122
Packaging annual costs	3.858,1
bottle (jar) for face cream 15 ml	1.131,8
bottle (jar) for face cream 30 ml	113,4
bottle 50 ml	707,8
bottle 150 ml	572,0
bottle 250 ml	324,0
plastic film for soap (5 JOD/50 m)	3,6
sprayer bottle for hair spray (150 ml)	660,0
sprayer bottle for hair spray (250 ml)	345,6
Labels (110 JOD/500 labels)	1.282
Annual trading costs (retailing chain, freight costs, advertisement via social media)	1080
Production Certification (from the third year)	350
TOTAL ANNUAL COSTS	8521

DEBT CAPITAL	
Bank loan	0%
Cost of Debt Capital	5%
Loan capital	0

FINAL PRODUCTS CALCULATION

- According to data provided by Roberto, the table reports the amount of raw materials used in the preparation of the final products
- Amounts of productions in 1 month considering 6 kg of gel produced (15 leaves)
- The process starts with the extraction of 6 kg of Aloe Gel. A portion (2.85 kg) represents a finished product; the other portion (3.15 kg) is used as semi-finished products for the production of cosmetics.

Working days in 1 month: 3.25

		OUTPUT									
		Aloe treatment and gel extraction	Aloe GEL	Face Cream	Foot Cream	Hair Oil	Body Lotion	Hair Spray	Soap	Amount (kg) per month	Amount (kg) per year
	hours	8	2	4	4	4	4	4	4	26	399
INPUT		Unit									
bee wax	kg			0,5	0,5		0,5			1,50	18,0
aloe gel	kg	6	2,85	0,5	0,5	0,40	0,5	1	0,25	6,00	72,0
sunflower oil	liter			1	1	1	1,2			4,20	50,4
Vit E	kg			0,025	0,025		0,025			0,08	0,9
almond oil	liter			0,05			0,05			0,10	1,2
preservatives (sodium benzoate)	kg		0,021	0,002	0,002	0,04	0,002			0,05	0,6
essential oil/rose water	liter			0,006		0,03			0,03	0,07	0,6
lemon oil	liter				0,05					0,05	0,6
kaab al-ghazal powder	kg				0,006					0,006	0,08
basil water	liter							1		1,00	12,0
glycerine	kg								1	1,00	12,0
natural gelatine powder	kg		0,21							0,00	0,0
honey	kg								0,05	0,05	0,5
Weight for product	kg	6	3,09	2,08	2,08	1,47	2,28	2,00	1,33	14,09	

Sizes of packaging	large (ml)	50	30		250	50	250	50
	small (ml)		15	15	150		150	
Packaging in 1 month	large	61,7	21		3	46	36	27
	small		97	139	6		73	
Packaging in 1 year	large	740	252	0	42	546	432	239
	small		1163	1667	70	0	880	0

ALOE GEL Actual annual output (kg)	72,0
ALOE GEL Maximum possible annual output (kg)	1.900
CAPACITY UTILIZATION RATE	3,79%

- 0,75 quantity of product obtained with 50 packages of 15 ml
- 0,72 quantity of product still to be packaged
- 28,8 number of 250 ml packs
- 1,1 quantity of product obtained with 50 packages of 15 ml
- 0,90 quantity of product still to be packaged
- 36 number of 250 ml packs

Products - Annual production		
Aloe Gel	kg	37,02
Face cream	kg	25,00
Foot cream	kg	25,00
Hair oil	l	17,64
Body lotion	kg	27,32
Hair spray	l	24,00
Soap	kg	15,96

171,95

UNIT COST_LEAVES

ALOE LEAF UNIT COST

production volume: 1 kg of Aloe leaves

PRODUCTION DIRECT COSTS

direct raw material

purchase of Aloe plants - amortization (donated by FGPII) Aloe plants 0 475 0

other raw material

raw material variable costs per unit (1 kg of leaf) 0

direct labour

land preparation and planting (amortization) work/person 13,98 2 27,96

irrigation system installation (amortization) work/person 9,75 2 19,51

aloe treatment (weeding + fertilizer) work/person 136,56 1 136,56

harvesting work/person 39 1 39,02

labour variable costs per unit (1 kg) 0,12

direct expenses

water m3 6 78 468

energy (electricity for irrigation system) kwh 120

Organic fertilizer and other treatment kg 2 40 80

Packaging for Aloe leaves m 0,1 108 10,8

direct expenses per unit 0,36

DIRECT MANUFACTURING COST (PRIME COST) 0,47

VARIABLE COMMERCIAL COSTS

freight costs

unitary freight costs

INDIRECT COSTS (overhead)

Land purchase (amortization)/loan agreement registration - -

Agriculture infrastructure (irrigation system+other) - amortization lot 25 1 25

Machinery and equipments/tools (amortization) 66,67 1 66,67

Insurance annual fee 0,05

total indirect costs per unit 0,05

TOTAL MANUFACTURING COST per kg of Aloe LEAF 0,52

TOTAL MANUFACTURING COST for 1 Aloe LEAF 0,21

Price for one leaf 0,5

Expected profit per leaf 0,29

CALCOLO BEP

MARGINE DI CONTRIBUZIONE 0,03

CF 91,67

BEP 3618

UNIT COST PRODUCTS

ALOE GEL UNIT COST

production volume: 1 kg of ALOE GEL

PRODUCTION DIRECT COSTS

direct raw material

Purchase (or production cost) of Aloe leaves nr 0,21 2,5 0,52

direct labour

labour cost for Aloe extraction process annual work/person 165,33 2 330,7

labour variable costs per unit (1 kg) 4,59

DIRECT MANUFACTURING COST (PRIME COST) 5,12

VARIABLE COMMERCIAL COSTS

0

INDIRECT COSTS (overhead)

infrastructure cost (amortization) lot 323 1 4,5

aloe gel processing unit (amortization) lot 135 1 1,9

electricity for processing (%) kwh

total 6,4

TOTAL COST per kg of ALOE GEL 11,48

ANTIAGE ALOE GEL UNIT COST

production volume: 1 kg of gel

PRODUCTION DIRECT COSTS

direct raw material

	Unit	JOD	Amount	Total
purchase (or production cost) of Aloe GEL	kg	11,48	1	11,48
Preservatives	g	0,02	6,9	0,14
Natural gelatine powder	g	0,016	75	1,20
raw material variable costs per unit (1 kg of GEL with gelatine)				12,82

direct labour

labour cost for Aloe extraction process	annual work/person	40,08	2	80,16
labour variable costs per unit (1 kg)				2,17

package bottle 50 ml	bottle/jar	0,55	20	11
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DIRECT MANUFACTURING COST (PRIME COST) 25,98

VARIABLE COMMERCIAL COSTS

label cost	label	0,22	20	4,4
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INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)		22,86		0,62
Product registration		480		2,79
electricity for processing (%)	kwh			
trading costs (retailing chain)		6,28		6,28

TOTAL COST per kg of ANTIAGE ALOE GEL 31,00

Cost per bottle 50 ml 1,55

Price for bottle of aloe GEL with gelatine 3

Expected profit for bottle of aloe GEL with gelatine 1,45

FACE CREAM UNIT COST

production volume: 1 kg of Aloe Face cream

PRODUCTION DIRECT COSTS

direct raw material

	Unit	JOD	Amount	Total
Aloe GEL (cost)	kg	11,48	0,240	2,75
bee wax	kg	9	0,240	2,16
sunflower oil	l	1	0,480	0,48
Vit E	kg	50	0,012	0,60
Almond oil	l	8	0,024	0,19
Preservatives	kg	20	0,001	0,02
Essential oil	l	100	0,003	0,31
raw material variable costs per unit (1 kg of Aloe CREAM)				6,51

direct labour

labour cost for Aloe extraction process	annual work/person	80,16	2	160,32
labour variable costs per unit (1 kg)				6,41

direct expenses per unit

package bottle 30 ml	bottle/jar	0,45	33	15
package bottle 15 ml	bottle/jar	0,4	67	26,67

DIRECT MANUFACTURING COST (PRIME COST) 30 ml 27,92

DIRECT MANUFACTURING COST (PRIME COST) 15 ml 39,59

VARIABLE COMMERCIAL COSTS

label cost 30 ml	label	0,22	33	7,33
label cost 15 ml		0,22	67	14,67

INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)	lot	22,86		0,91
electricity for processing (%)	kwh			
trading costs (retailing chain)		8,32		8,32
Product registration		480,00		2,79

TOTAL COST per kg of CREAM 47,28 case 30 ml

66,28 case 15 ml

Cost per jar 30 ml 1,42

Cost per jar 15 ml 0,99

Price per jar of Aloe Face Cream (30 ml) 4

Expected profit for one jar of Aloe Face Cream (30 ml) 2,58

Price per jar of Aloe Face Cream (15 ml) 3

Expected profit for one jar of Aloe Face Cream (15 ml) 2,01

ALOE FOOT CREAM UNIT COST

production volume: 1 kg of Aloe CREAM

PRODUCTION DIRECT COSTS**direct raw material**

	Unit	JOD	Amount	Total
cost of Aloe GEL	kg	11,5	0,240	2,75
bee wax	kg	9,0	0,240	2,16
sunflower oil	l	1,0	0,480	0,48
Vit E	kg	50,0	0,012	0,60
preservatives	kg	20,0	0,001	0,02
lemon oil	l	20,8	0,024	0,50
kaab al-ghazal powder	kg	428,6	0,003	1,31
raw material variable costs per unit (1 kg of Aloe FOOT CREAM)				7,82

direct labour for cream

labour cost for the cream production	annual work/person	80,16	2	160,32
labour variable costs per unit (1 kg)				6,41

direct expenses per unit

package bottle 15 ml	bottles	0,4	67	26,7
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DIRECT MANUFACTURING COST (PRIME COST)

40,90

VARIABLE COMMERCIAL COSTS

label cost		0,22	67	14,67
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INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)	lot	22,86		0,91
trading costs (retailing chain)		8,32		8,32
Product registration		480,00		2,79
electricity for processing (%)	kwh			

TOTAL COST per kg of FOOT CREAM

67,59

Cost per bottle 15 ml

1,01

Price for one bottle of ALOE FOOT CREAM (15 ml)

3

Expected profit for one bottle of ALOE FOOT CREAM (15 ml)

1,99

BODY LOTION UNIT COST

production volume: 1 kg of Body lotion

PRODUCTION DIRECT COSTS**direct raw material**

	Unit	JOD	Amount	Total
cost of Aloe GEL	kg	11,5	0,220	2,52
bee wax	kg	9,0	0,220	1,98
sunflower oil	l	1,0	0,527	0,53
Vit E	kg	50,0	0,011	0,55
preservatives	kg	20,0	0,001	0,02
almond oil	l	8,0	0,022	0,18
raw material variable costs per unit (1 kg of body lotion)				5,77

direct labour for body lotion

labour cost	annual work/person	80,16	2	160,32
labour variable costs per unit (1 kg)				5,87

direct expenses per unit

package bottle 50 ml	bottles	0,55	20	11,0
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DIRECT MANUFACTURING COST (PRIME COST)

22,63

VARIABLE COMMERCIAL COSTS

label cost		0,22	20	4,40
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INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)	lot	22,86		0,84
trading costs (retailing chain)		6,28		6,28
Product registration		480,00		17,57
electricity for processing (%)	kwh			

TOTAL COST per kg of Body Lotion

51,72

Cost per bottle 50 ml

2,59

Price for one bottle of ALOE BODY LOTION (50 ml)

6

Expected profit for one bottle of ALOE BODY LOTION (50 ml)

3,41

ALOE HAIR OIL UNIT COST

production volume: 1liter of HAIR OIL

PRODUCTION DIRECT COSTS

direct raw material

	Unit	JOD	Amount	Total
purchase of Aloe GEL	kg	11,48	0,27	3,12
sunflower oil	l	1	0,68	0,68
Preservatives	kg	20	0,03	0,54
essential oil	ml	100	0,02	2,04

raw material variable costs per unit (1 l of Aloe HAIR OIL)

6,39

direct labour for cream

labour cost for hair oil production	annual work/person	80,16	2	160,32
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labour variable costs per unit (1 l of hair oil)

9,09

direct expenses per unit

bottles with caps 250 ml	bottles	0,75	4	3,00
bottles with caps 150 ml	bottles	0,65	7	4,33

DIRECT MANUFACTURING COST (PRIME COST) 250 ml

18,48

DIRECT MANUFACTURING COST (PRIME COST) 150 ml

19,81

VARIABLE COMMERCIAL COSTS

label cost (250 ml)		0,22	4	0,88
label cost (150 ml)		0,22	7	1,47

INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)	lot	22,86		1,30
Trading costs		8,32		8,32
electricity for processing (%)	kwh			
Product registrazion	m3	480		2,79

TOTAL COST per liter of ALOE HAIR OIL (packaging 250 ml)

31,76

TOTAL COST per liter of ALOE HAIR OIL (packaging 150 ml)

33,68

Cost per bottle 250 ml

7,94

Cost per bottle 150 ml

5,05

Price for one bottle 250 ml

5

Expected profit for one bottle 250 ml

-2,94

Price for one bottle 150 ml

4

Expected profit for one bottle 150 ml

-1,05

ALOE VERA SPRAYER UNIT COST

production volume: 1 liter

PRODUCTION DIRECT COSTS

direct raw material

	Unit	JOD	Amount	Total
purchase of Aloe GEL	kg	11,48	0,5	5,74
basil/rosemary water	l	0	1	0
raw material variable costs per unit (1 l of Aloe sprayer)				5,74

direct labour for aloe vera sprayer

labour cost for hair oil production	annual work/person	80,16	2	160,32
labour variable costs per unit (1 l of aloe sprayer)				6,68

direct expenses per unit

bottle 250 ml	bottles	0,75	4	3,00
bottle 150 ml	bottles	0,65	7	4,33

DIRECT MANUFACTURING COST (PRIME COST) 250 ml

15,42

DIRECT MANUFACTURING COST (PRIME COST) 150 ml

16,75

VARIABLE COMMERCIAL COSTS

label cost 250 ml		0,22	4	0,88
label cost 150 ml		0,22	7	1,47

INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)		22,86		0,95
electricity for processing (%)	kwh			
Trading costs		8,32		8,32
Product registration		480		2,79

TOTAL COST per liter of ALOE Vera Sprayer (packaging 250 ml)

28,36

TOTAL COST per liter of ALOE Vera Sprayer (packaging 150 ml)

30,28

Cost per bottle 250 ml

7,09

Cost per bottle 150 ml

4,54

Price for one bottle 250 ml

4

Expected profit for one bottle 250 ml

-3,09

Price for one bottle 150 ml

3

Expected profit for one bottle 150 ml

-1,54

ALOE HAND SOAP UNIT COST

production volume: 1 kg of SOAP

PRODUCTION DIRECT COSTS

direct raw material

	Unit	JOD	Amount	Total
purchase of Aloe GEL	kg	11,48	0,19	2,16
glycerine	kg	2	0,75	1,50
essential oil	l	100	0,02	2,26
honey	kg	12	0,04	0,45
raw material variable costs per unit (1 kg of Aloe SOAP)				4,64

direct labour for SOAP

labour cost for soap production	annual work/person	80,16	2	160,32
labour variable costs per unit (1 kg of soap)				10,05

direct expenses per unit

packaging (film)	m	0,1	0,15	0,015
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DIRECT MANUFACTURING COST (PRIME COST)

14,70

VARIABLE COMMERCIAL COSTS

label cost		0,22	10	2,20
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INDIRECT COSTS (overhead)

Tools for cosmetics production (amortization + % of utilization)		22,86		1,43
Soap cutter + moulds (1 set per year)		40,00		2,51
Trading costs		8,32		8,32
Product registration		480		2,79
electricity for processing (%)	kwh			

TOTAL COST per kg of Aloe Soap

31,95

Cost per soap

3,19

Price for one soap

1

Expected profit for one soap

-2,19

COSTS

JOD currency

	Year									
	1	2	3	4	5	6	7	8	9	10
COSTS										
Purchase of Aloe plants		0	0	0	0	0	0	0	0	0
Total annual labour cost for field phase	178	181	184	187	190	193	196	199	203	206
Total labour cost for processing phase	1.354	1.376	1.398	1.420	1.443	1.466	1.489	1.513	1.537	1.562
Annual costs for fertilizer and other Aloe treatments	81	83	84	85	87	88	89	91	92	94
Annual consumption of water supply for irrigation	475	483	491	499	507	515	523	531	540	549
Electricity consumption for irrigation system	122	124	126	128	130	132	134	136	138	141
Raw materials for aloe processing and cosmetics production	463	470	478	486	493	501	509	517	526	534
Cost for packaging for aloe leaves	11	11	11	12	12	12	12	12	12	13
Cost for packaging for final products	3920	3983	4046	4111	4177	4244	4312	4381	4451	4522
Cost for label	1303	1323	1345	1366	1388	1410	1433	1456	1479	1503
Direct Costs	7.907	8.034	8.162	8.293	8.426	8.561	8.698	8.837	8.978	9.122
Annual trading costs (retailing chain, freight costs, advertisement)	1097	1115	1133	1151	1169	1188	1207	1226	1246	1266
Other costs (mainly for promotion via social media)	356	361	367	373	379	385	391	397	404	410
Servicing costs (gas, water and electricity)	0	0	0	0	0	0	0	0	0	0
DPI materials	124	126	128	130	132	134	136	139	141	143
Soap cutter + moulds (1 set per year)	41	41	42	43	43	44	45	45	46	47
Production Certification (from the third year)	0	0	367	373	379	385	391	397	404	410
Indirect operating costs	1.617	1.643	2.037	2.069	2.102	2.136	2.170	2.205	2.240	2.276
Total Costs	9.525	9.677	10.199	10.362	10.528	10.697	10.868	11.042	11.218	11.398
AMORTIZATION										
Farm infrastructure (irrigation system + other)	25,00	25,00	25,00	25,00	25,00	25,00	25,00	25,00	25,00	25,00
Farm machinery/equipments	66,67	66,67	66,67	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Labour costs for land prep. + irrigation syst. installation	47,47	47,47	47,47	47,47	47,47	0,00	0,00	0,00	0,00	0,00
Infrastructure for transformation phases	323,00	323,00	323,00	323,00	323,00	323,00	323,00	323,00	323,00	323,00
Tools for aloe processing and cosmetic production	295,00	295,00	295,00	295,00	295,00	295,00	295,00	295,00	295,00	295,00
Product registration	480,00	480,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
Total amortization	1.237	1.237	757	690	690	643	643	643	643	643
TOTAL COSTS	10.762	10.914	10.956	11.053	11.219	11.340	11.511	11.685	11.861	12.041

PROVISION

Provision	0	0	0	0	0	0	0	0	0	0
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REVENUES

JOD currency

	Year									
	1	2	3	4	5	6	7	8	9	10
REVENUES										
Aloe leaves	183	186	189	192	195	198	201	204	208	211
Aloe GEL with gelatine (50 ml)	2.257	2.293	2.330	2.367	2.405	2.443	2.482	2.522	2.562	2.603
Aloe Face Cream (30 ml)	1.024	1.041	1.057	1.074	1.091	1.109	1.126	1.144	1.163	1.181
Aloe Face Cream (15 ml)	3.544	3.601	3.658	3.717	3.776	3.837	3.898	3.960	4.024	4.088
Aloe foot cream (15 ml)	5.080	5.161	5.244	5.328	5.413	5.500	5.588	5.677	5.768	5.860
Aloe Body Lotion (50 ml)	3.331	3.385	3.439	3.494	3.550	3.607	3.664	3.723	3.782	3.843
Aloe hair oil (250 ml)	212	216	219	222	226	230	233	237	241	245
Aloe hair oil (150 ml)	283	287	292	297	301	306	311	316	321	326
Spray for hair (250 ml)	1.756	1.784	1.812	1.841	1.871	1.901	1.931	1.962	1.993	2.025
Spray for hair (150 ml)	2.682	2.725	2.769	2.813	2.858	2.904	2.950	2.997	3.045	3.094
Aloe hand soap	243	247	251	255	259	263	268	272	276	281
Sales of Aloe based products	20.595	20.925	21.260	21.600	21.945	22.296	22.653	23.016	23.384	23.758

PROFIT AND LOSS STATEMENT

JOD currency

	Year										
	0	1	2	3	4	5	6	7	8	9	10
PROFIT AND LOSS STATEMENT											
Revenues	20.595	20.925	21.260	21.600	21.945	22.296	22.653	23.016	23.384	23.758	
Direct Costs	7.907	8.034	8.162	8.293	8.426	8.561	8.698	8.837	8.978	9.122	
Indirect operating costs	1.617	1.643	2.037	2.069	2.102	2.136	2.170	2.205	2.240	2.276	
Operational cash flow (EBITDA)	11.070	11.247	11.060	11.237	11.417	11.600	11.785	11.974	12.166	12.360	
Amortisation	1.237	1.237	757	690	690	643	643	643	643	643	
Provision (reserves)	-	-	-	-	-	-	-	-	-	-	
Operating profit (EBIT)	9.833	10.010	10.303	10.547	10.727	10.957	11.142	11.331	11.523	11.717	
financial management	0	0	0	0	0	0	0	0	0	0	
extraordinary management	0	0	0	0	0	0	0	0	0	0	
Earning before tax (EBT)	9.833	10.010	10.303	10.547	10.727	10.957	11.142	11.331	11.523	11.717	
Jordan taxes	1967	2.002	2.061	2.109	2.145	2.191	2.228	2.266	2.305	2.343	
NET INCOME (net profit)	7.867	8.008	8.243	8.437	8.581	8.765	8.914	9.065	9.218	9.374	
CASH FLOW											
Net cash flow	-6.352	9.104	9.245	9.000	9.128	9.272	9.408	9.557	9.708	9.861	10.017
Discounted cash flow	-6.352	8.670	8.386	7.774	7.510	7.265	7.021	6.792	6.571	6.357	6.149

INDEX	
Simple Payback Time formula	
Tot. Investments	6.352
Annual Costs	10.762
Annual Revenues	20.595
Simple Payback Time (years)	0,65
contribution margin (revenues - VC)	12.688
Fixed Costs (c.o.+amm/ti)	2.855
Operating profit	9.833
Total Fixed Costs	2.855
Revenues - Variable Costs (Contribution Margin)	12.688
BEP (break even point) Turnover	4.634

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**ITALIAN AGENCY
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