



Investment
Opportunities
in Kosovo's
Agribusiness
CONFERENCE
2015

Creating Connections

Medicinal and Aromatic Plants

INFORMATIONAL BOOKLET





MEDICINAL AND AROMATIC PLANTS AND NON-WOOD FOREST PRODUCTS IN KOSOVO

Kosovo used to be one of the biggest suppliers of Medicinal and Aromatic Plants (MAP) as well as Non-Wood Forest Products (NWFP) in ex-Yugoslavia. Its largest products included forest berries, wild medicinal plants and aromatic plants. The Non-wood Forest Products (NWFP) sector in Kosovo is active in the collection of NWFP in the wild as well as in the cultivation of 16 MAP species.

Kosovo has a comparative advantage in that the quality and variety of its MAP and NWFP products enjoys a good international reputation. The low cost of labor, in terms of collection, cultivation and processing of these products, contributes further to this competitiveness. Kosovo has a well-established and functioning network of collectors and semi-processors, who have established relations with rural communities and continuously stimulate these communities to undertake the collection and improved understanding of these products. However, currently Kosovo mainly serves as a primary supplier with most of the processing based in other countries. This presents an opportunity, not only in investing in cultivation and wild collection systems, but also in semi-processing, increasing the value added for Kosovo in multiples.

Geographical position, relief configuration, geologic composition and climate conditions of Kosovo determine its rich and rather interesting flora; 84 NWFP species of commercial importance have been identified with potential of almost 29,000 tons of dried, present in the following five regions: Albanian Alps..., Sharri, Gollaku, Mitrovica and Podujeva, as well as Central Kosovo. The richest regions of Kosovo with MAP and NWFP are the Sharri Mountains and the Albanian Alps; in these regions especially in the subalpine zone, bilberry, juniper and cowslip all dominate. These species are important and valuable in international markets. In general, Kosovo's industry-relevant territory (10,908 km²) is quite rich from the point of view of biodiversity and quantity of MAP and NWFP products.





In terms of NWFP collected in the wild, currently Kosovo farmers from rural areas collect only a small part of the existing potential in the nation's mountains. The total potential area for collection of these products is over 100,000 hectares; however currently less than 25% of this area is used for collection and only then for a small number of products. It is estimated that only 6% of the available potential is currently utilized, mainly in blueberries, juniper berries, mushrooms and some medicinal plants.

With regards to cultivation, there are around 250 hectares of cultivated MAPs, of which 85 hectares are certified as organic, mainly certified through an aggregator company.

This sector provides good opportunities especially for more remote rural and mountainous areas and provides good opportunities for the involvement of young people in collection.



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MAP AND NWFP MARKET

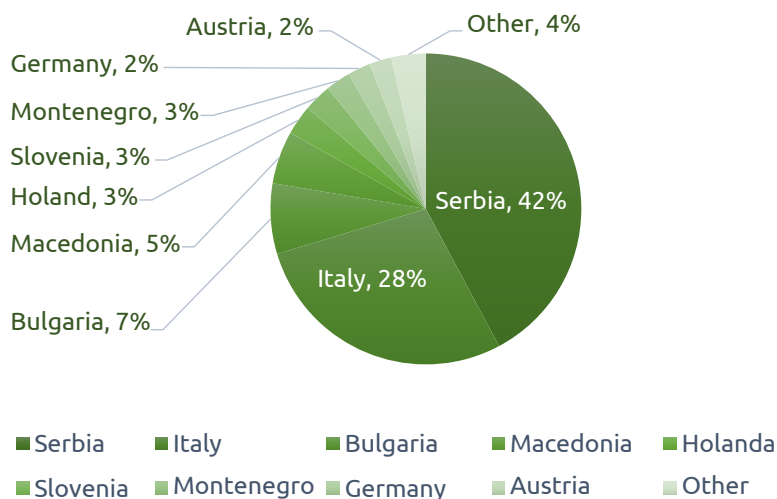
There are 13 active larger collecting companies in Kosovo, mainly dealing in wild mushrooms, with approximately 40 collection points acting as a primary mediator. It is estimated that currently in Kosovo 800 tons of wild mushrooms are collected annually (mainly porcini or *Boletus edulis*). This is considered to be well under the average annual production capacity of porcini mushrooms in Kosovo, leaving a lot of scope for increasing current collection and processing capacities. One geographical area that is still considered untapped is the Rugova mountain region.

The larger market players also deal with the collection and processing of wild forest fruits mainly blueberries, rosehips, blackberries, juniper berries and wild apples. A few also deal with the collection and processing of medicinal and aromatic wild plants.

The total annual final market value of MAP and NWFP products is estimated at close to 10 million Euros per year, giving a large value-added potential in semi-processing and collection and aggregation services. Most of the companies active in the sector in fact sell under 100 tons per year, while only a few leading companies are trading over 200 tons of mushrooms and other NWFP products per year.

In terms of the markets, it is estimated that 95% consist of export markets, with only 5% being sold domestically. Mushrooms, being the largest of the NWFP products, are exported mainly to Italy, with Serbia being a large interim destination serving as a middleman hub for further sales, again mainly to Italy. This is due to existing trade agreements struck between large buyers and Serbian collectors.

The following graph presents the main export markets for MAP and NWFP.



Market demand for MAPs and NWFP is considered to far outstrip current supply, which shows the potential for increased collection and production capacities. Kosovo is renowned for the quality of its wild mushrooms, especially *Boletus edulis* (porcini). Kosovo mushrooms are in high demand. The domestic demand is also expected to increase in the coming years, as mushrooms as well as other NWFP products are increasingly becoming part of the daily diets of many of Kosovo's citizens. According to an HPK study (2011) the number people engaged in NWFP collection is estimated at 11,400 collectors/families. Additionally, around 192 people are engaged in 158 mobile collection points and sub-operators.

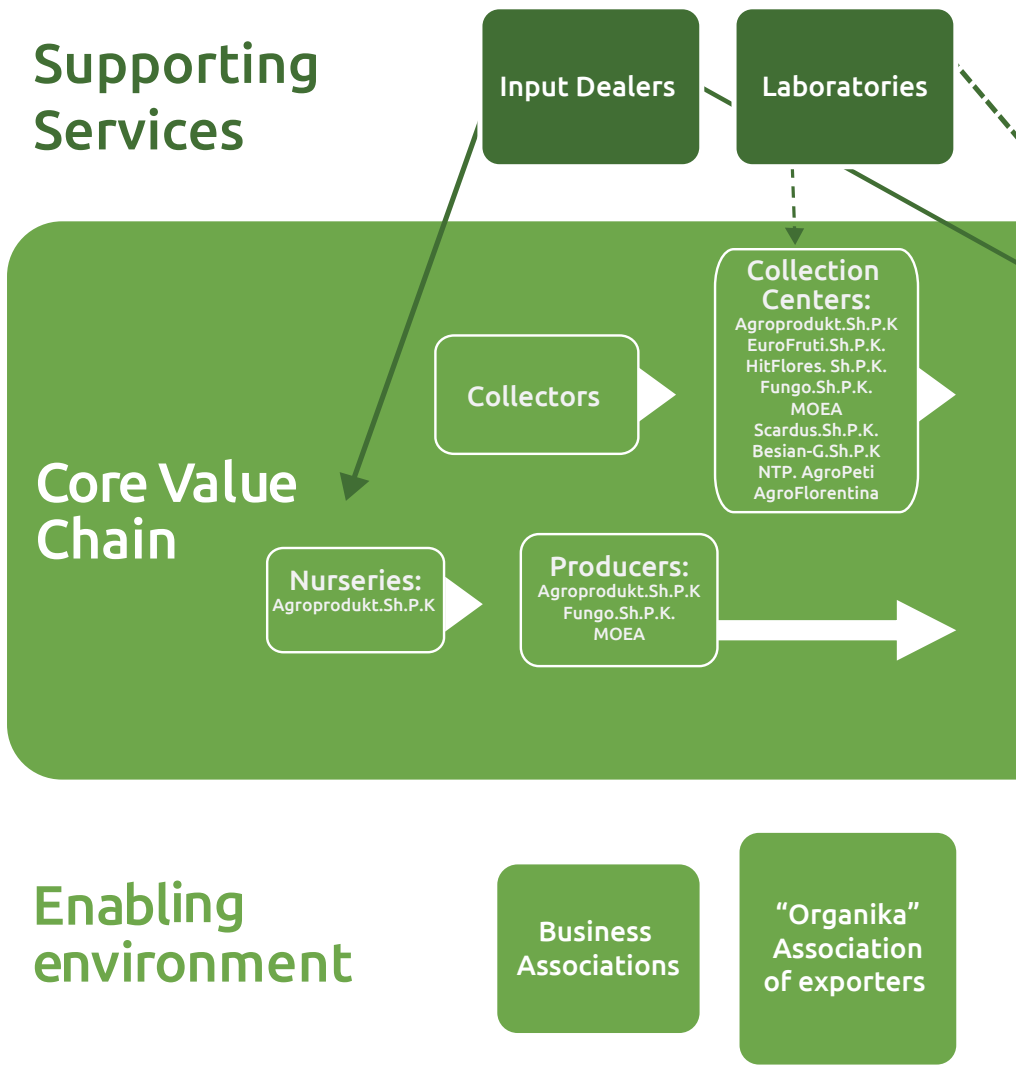
In recent years, due to increased use of these products, some of the big semi-processors have started to cultivate chamomile, sage and other products in demand from international markets. Typically, big operators provide seeds and technical assistance and finally purchase dried products from farmers. The key to increasing the production capacities and increase value added to the market for MAP and NWFP is investment in driers, shock freezers and deep-freeze storage facilities. Addressing processing capacities increases both the capacity for processing larger volumes, increasing the value added and opening up new export markets, which are thirsty for high quality MAP and NWFP products.

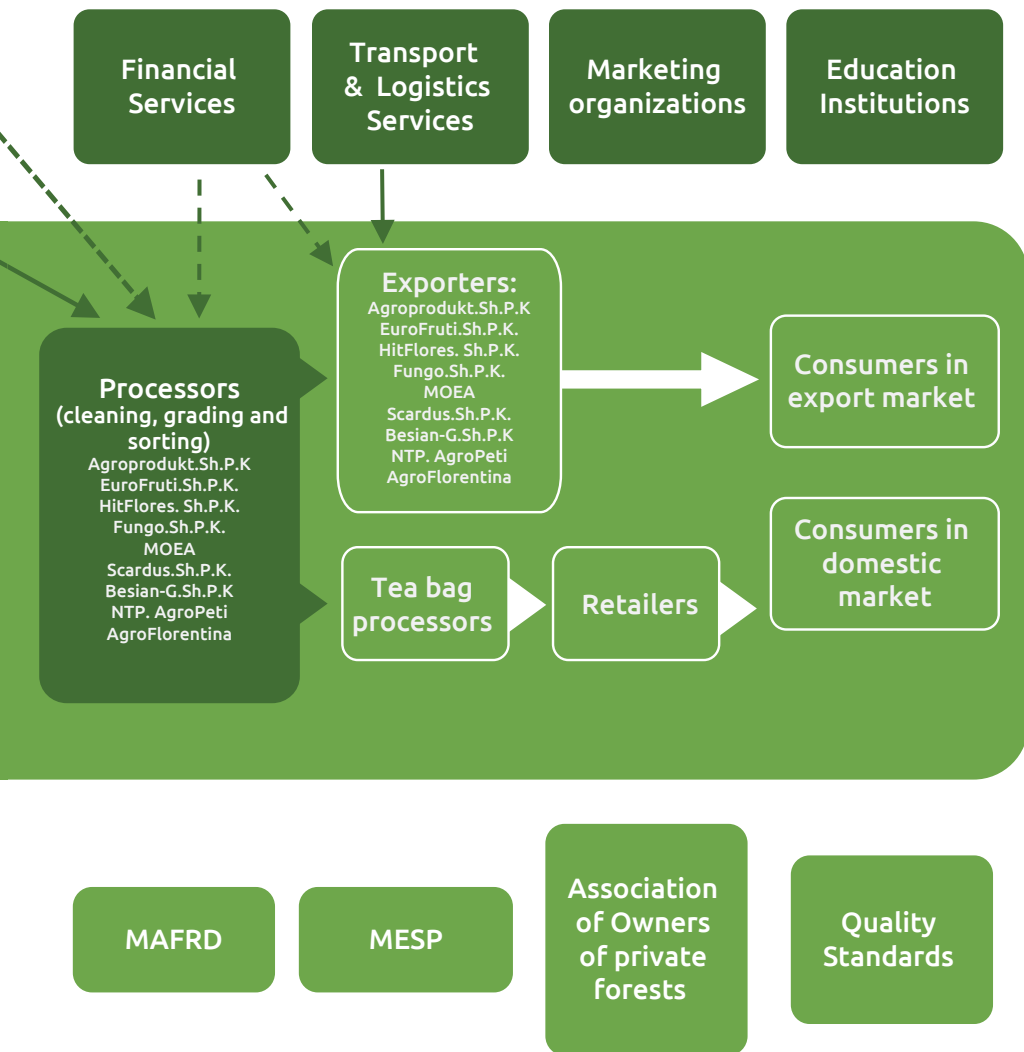
The following table presents a picture of historically cultivated areas for MAPs only, their yields and export quantities as well as estimated Euro values, including the main destination countries.

PRODUCT	2009	2010	2011	2012	2013	2014
Production (t)	1,650	2,040	2,046	2,860	3,050	3,850
Area Cultivation (ha)	12	30	40	75	175	250
Cultivated (t)	35	95	125	235	540	820
Collected (t)	1,615	1,945	2,335	2,625	2,510	3,030
Export total (t)	1,562	1,887	2,241	2,571	2,629	3,240
Export value (euro)	2,100,000	2,650,000	3,750,000	3,750,000	4,167,000	5,200,000
Importing countries Top 5 (% of the total import)	Serbia, Germany, Italy, Switzerland,	Serbia, Germany, Italy, Switzerland,	Serbia, Germany, Italy, Switzerland,	Serbia, Germany, Italy, Switzerland,	Serbia, Germany, Italy, Switzerland,	Serbia, Germany, Italy, Switzerland,
Exporting countries Top 5 (% of the total export)	Germany, Italy, Switzerland, Netherlads	Germany, Italy, Switzerland, Netherlads	Germany, Italy, Switzerland, Netherlads	Germany, Italy, Switzerland, Netherlads	Germany, Italy, Switzerland, Netherlads	Germany, Italy, Switzerland, Netherlads

MAPs and NWFPs are currently mainly exported as raw materials to processors across three industries: food, cosmetics and pharmaceuticals. The MAP and NWFP sector has access to the world market, and competes with actors worldwide. The trends show that global demand for herbal products is increasing steadily by 3% to 12% per year, depending on the product. The current global market for MAP and NWFP is estimated to be about 84 billion USD, due to the increased awareness of their role in healthy eating and the increased use of herbs in cosmetics and medicinal treatments. For these reasons, the global market is expected to continue to grow for many years to come.

MAP VALUE CHAIN





INVESTMENT CASE FOR MAP

The following sections present a typical investment case for the cultivation and processing of several of the main MAP and NWFP with the greatest market potential.

This document is for information and illustrative purposes only and does not purport to show actual results. It is not, and should not be regarded as investment advice, or as a recommendation regarding any particular security or course of action. Opinions expressed herein are current opinions as of the date appearing in this material only and are subject to change without notice. Reasonable people may disagree about the opinions expressed herein. In the event any of the assumptions used herein do not prove to be true, results are likely to vary substantially. All investments entail risks. There is no guarantee that investment strategies will achieve the desired results under all market conditions and each investor should evaluate its ability to invest for a long term especially during periods of a market downturn. No representation is being made that any account, product, or strategy will or is likely to achieve profits, losses, or results similar to those discussed, if any.

The investment cases presented below are calculated on a per-hectare basis and represent an illustration of investments required, operational costs, labor effort, output and sales, in the process analyzing the investment case for each crop.

The cases presented are based on typical years and natural conditions. Input prices as well output yields and prices depend on a number of factors, including market developments and inputs and care provided by the investor. No liability for the authors can be inferred from the following calculations. The presented cases are for illustrational purposes only with the intention of providing an indication for the investment opportunity.

In terms of processing capacities, a typical investment case is presented for drying and freezing capacities with opportunities for further processing illustrated in terms of percentage mark-ups for various value added activities.

Based on the market analysis and the huge potential for developing new export markets, the key to successful investments is related to developing existing and new linkages with export markets.

In essence, investment opportunities lie in the following areas:

- investments in production capacities
- investments in processing capacities
- investments in existing companies providing investment and working capital destined for increased collection and cultivation as well as improved processing capacities

CHAMOMILE

INPUTS

INVESTMENTS REQUIRED FOR LAND PREPARATION

Land preparation cost	Amount
Dryer	€ 6,000
Plowing	€ 120
Soil preparation (rototailing)	€ 200
Roling	€ 120
Manure	€ 30
TOTAL LAND PREPARATION COSTS	€ 6,470

OPERATIONAL COSTS

Operational Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Combine Harvesting	€ 135	€ 135	€ 135	€ 135	€ 135
Labor	€ 80	€ 80	€ 80	€ 80	€ 80
Dryer maintanance	€ 120	€ 120	€ 120	€ 120	€ 120
Dryer costs	€ 400	€ 400	€ 400	€ 400	€ 400
Seed	€ 96	€ 96	€ 96	€ 96	€ 96
Amortization (20 years)	€ 324	€ 324	€ 324	€ 324	€ 324
TOTAL OPERATIONAL COST	€ 1,155	€ 1,155	€ 1,155	€ 1,155	€ 1,155

OUTPUTS AND RETURNS

YIELD PER HA

Yield	Amount
Yield per ha	1,300
PRICE	€ 3.85

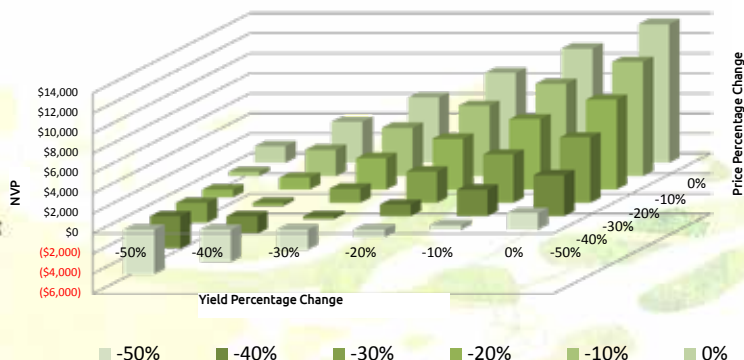
SALES AND PROFIT

Proforma Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4	Year 5
SALES					
Chamomile	€ 5,000.00	€ 5,000.00	€ 5,000.00	€ 5,000.00	€ 5,000.00
TOTAL SALES	€ 5,000.00	€ 5,000.00	€ 5,000.00	€ 5,000.00	€ 5,000.00
TOTAL COSTS	1,154.50	1,154.50	1,154.50	1,154.50	1,154.50
NET PROFIT BEFORE TAX	€ 3,845.50	€ 3,845.50	€ 3,845.50	€ 3,845.50	€ 3,845.50

INVESTMENT CASE

Considering optimal calculated parameters, such as price and quantity sold of chamomile, an investment, along with operational costs of 1,592.80 Euros and an accounted cost of capital of 20%, yields a 179% return on equity.

CHAMOMILE NPV VS YIELD & PRICE



GREAT YELLOW GENTIAN

INPUTS

INVESTMENTS REQUIRED

Investments	Total
Plowing	€ 130
Rototilling	€ 100
Seeds kg	€ 300
Preparation of seeds for sowing - 5-10 gr/1m2 - 300 - 500 plants/m2, days	€ 240
Maintenance of seedlings/Days	€ 240
Transplanting of seedlings - 1 worker/day*2000 - 3000 seedlings	€ 480
Sun drying	€ 500
TOTAL INVESTMENTS REQUIRED	€ 1,990

OPERATIONAL COSTS

Operational Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Irrigation - costs of fuel	€ 60	€ 60	€ 60	€ 60	€ 60
Amortization	€ 398	€ 398	€ 398	€ 398	€ 398
TOTAL ANNUAL COSTS	€ 458	€ 458	€ 458	€ 458	€ 458

LABOR COSTS

Labour Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Weeding - 2 times	€ 40	€ 40	€ 40	€ 40	€ 40
Harvest and cleaning	€ -	€ -	€ -	€ -	€ 1,200
Drying - firewood m3	€ -	€ -	€ -	€ -	€ 900
TOTAL LABOUR COSTS	€ 40	€ 40	€ 40	€ 40	€ 2,140

OUTPUTS AND RETURNS

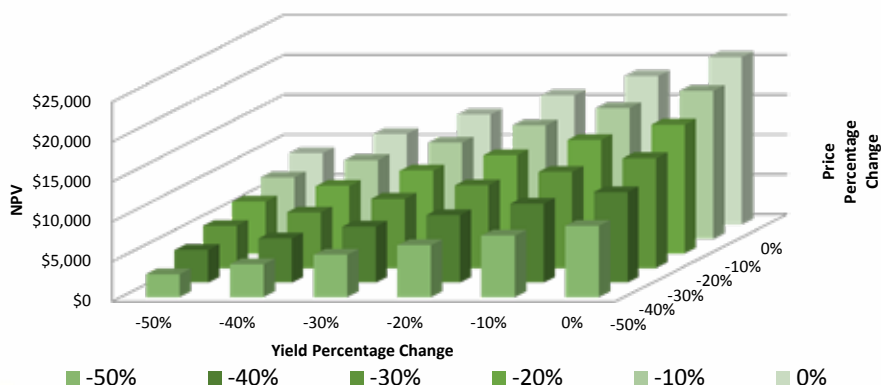
SALES AND PROFIT

Proforma Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4	Year 5
SALES					
Quantity gentiana lutea	-	-	-	-	6,000
Price 1st class gentiana lutea	€ 10.0	€ 10.0	€ 10.0	€ 10.0	€ 10.0
TOTAL SALES	€ -	€ -	€ -	€ -	€ 60,000
TOTAL ANNUAL COSTS					
	€ 498	€ 498	€ 498	€ 498	€ 2,598
NET PROFIT BEFORE TAX					
	€ (498)	€ (498)	€ (498)	€ (498)	€ 57,402

RETURN ON EQUITY

Considering an optimal case with an investment of 1,990 Euros and a cost of capital of 20%, an investment in Gentiana lutea yields a Net Present Value of 20,979 Euros. Return on Equity for an optimal case of investing in Gentiana lutea, when accounting for the investment costs of 1,990 Euros, is a whopping 577% over a six-year period.

GENTIANA LUTEA NPV VS YIELD & PRICE



LEMON BALM

INPUTS

INVESTMENTS REQUIRED

Investments	Amount
Plowing	€ 130
Rototilling	€ 100
Seeds kg	€ 150
Preparation of seeds for sowing	€ 12
Maintenance of seedlings/Days	€ 48
Transplanting of seedlings	€ 300
Dryer	€ 6,000
TOTAL INVESTMENT	€ 6,740

OPERATIONAL COSTS & LABOR COSTS

Operational and Labor Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Harrowing	€ 40	€ 40	€ 40	€ 40	€ 40
Irrigation	€ 60	€ 60	€ 60	€ 60	€ 60
Dryer maintenance	€ 120	€ 120	€ 120	€ 120	€ 120
Dryer cost	€ 400	€ 400	€ 400	€ 400	€ 400
Harvesting	€ 100	€ 200	€ 200	€ 200	€ 200
Investment amortization	€ 337	€ 337	€ 337	€ 337	€ 337
TOTAL OPERATIONAL COST	€ 1,057	€ 1,157	€ 1,157	€ 1,157	€ 1,157

OUTPUTS AND RETURNS

SALES AND PROFIT

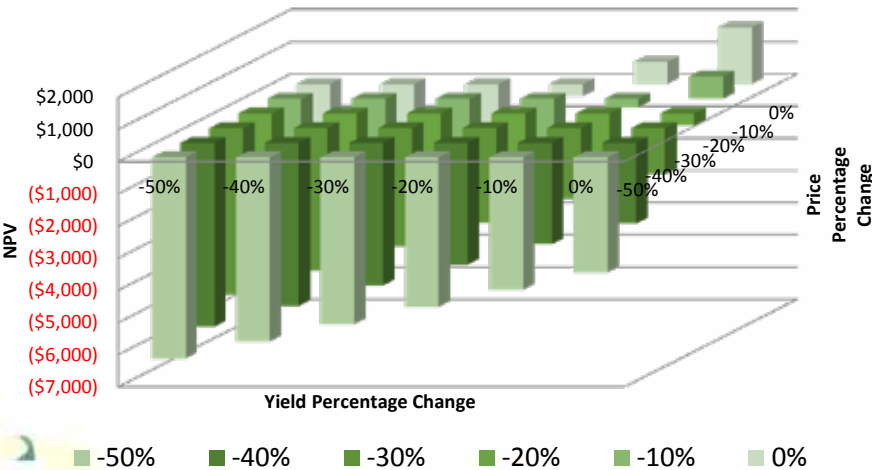
Revenue	Year 1	Year 2	Year 3	Year 4	Year 5
Quantity	720	3,000	3,000	3,000	3,000
Price	€ 1	€ 1	€ 1	€ 1	€ 1
Sales	€ 720	€ 3,000	€ 3,000	€ 3,000	€ 3,000

Proforma Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4	Year 5
Total Sales	€ 720	€ 3,000	€ 3,000	€ 3,000	€ 3,000
Total Costs	€ 1,057	€ 1,157	€ 1,157	€ 1,157	€ 1,157
NET PROFIT BEFORE TAX	€ (337)	€ 1,843	€ 1,843	€ 1,843	€ 1,843

RETURN ON EQUITY

Return on Equity for an optimal case of investing in Melissa, when accounting for the investment and operational costs required of 1,240 Euro, is 183%. Accounting for a cost of capital of 20% the investment yields a Net Present Value of 5,018 Euros.

MELISA NPV VS YIELD & PRICE



MARSHMALLOW

INPUTS

INVESTMENTS REQUIRED

Investments	Total
Superficial plowing	€ 130
Deep plowing in autumn	€ 130
Seeds	€ 75
Preparation of seeds for sowing	€ 24
Maintenance of seedlings/Days	€ 60
Transplanting of seedlings	€ 360
TOTAL INVESTMENTS REQUIRED	€ 779

OPERATIONAL COSTS& LABOR COSTS

Operational Costs	Total
Weeding - 2 times	€ 240
Irrigation - costs of fuel	€ 120
Harvest of roots - by tractor	€ 300
Pilling of roots - 100 kg/day	€ 1,920
Drying - firewood m3	€ 480
TOTAL ANNUAL OPERATIONAL COSTS	€ 3,060

OUTPUTS AND RETURNS

SALES AND PROFIT

Proforma Profit and Loss Statement	kg	Farm price per kg	Total
SALES			
Fresh roots kg 12 000 - 16 000 (4:1), dried 2000 - 3000 kg, Pc	2,000	€ 7.0	€ 14,000
Fresh flowers 1000 kg (6/7:1) - dried 150 kg	150	€ 1.0	€ 150
Fresh leaves 3000 - 3500 (6/7:1) 500 kg * €1	500	€ 1.0	€ 500
TOTAL SALES			€ 14,650
TOTAL COSTS INCLUDING INVESTMENTS			€ 3,839
NET PROFIT BEFORE TAX			€ 10,811

RETURN ON EQUITY

An optimal case of investing in common marshmallow, when accounting for the investment and operational costs required of 3,839 Euro, including a cost of capital of 20%, yields a whopping 230% return on equity in one year.

BLUE MALLOW

INPUTS

INVESTMENTS REQUIRED

Investments	Amount
Deep plowing in autumn	€ 130
Additional works	€ 65
Seeds - 1.5-2 kg	€ 75
Transplanting of seedlings	€ 240
TOTAL	€ 510

OPERATIONAL COSTS & LABOR COSTS

Operational and Labour Costs	Amount
Seedlings care	€ 60
Harrowing	€ 40
Irrigation	€ 120
Harvesting	€ 8,400
TOTAL OPERATIONAL COST	€ 8,620



OUTPUTS AND RETURNS

SALES AND PROFIT

Revenue	Price	Quantity	Amount
Fresh Flower	€ 11	2,500	€ 27,500
Leaf	€ 1	2,000	€ 2,000
TOTAL SALES			€ 29,500

Proforma Profit and Loss Statement	Amount
Total Sales	€ 29,500
Total Costs + Investment	€ 9,130
NET PROFIT BEFORE TAX	€ 20,370

RETURN ON EQUITY

An optimal case of investing in high mallow, when accounting for the investment and operational costs required of 9,130 Euro, including discounting for cost of capital of 20%, yields a whopping 254% return on equity..

INPUTS

INVESTMENTS REQUIRED

Investments	Amount
Plowing in autumn	€ 130
Rototilling	€ 100
Seeds kg	€ 150
Preparation of seeds for sowing	€ 12
Maintenance of seedlings/Days	€ 48
Transplanting of seedlings	€ 300
Dryer	€ 6,000
TOTAL INVESTMENT	€ 6,740

OPERATIONAL COSTS & LABOR COSTS

Operational and Labour Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Harrowing	€ 40	€ 40	€ 40	€ 40	€ 40
Irrigation	€ 60	€ 60	€ 60	€ 60	€ 60
Harvesting	€ 100	€ 200	€ 200	€ 200	€ 200
Dryer Maintenance	€ 120	€ 120	€ 120	€ 120	€ 120
Dryer cost	€ 400	€ 400	€ 400	€ 400	€ 400
Investment amrotization (20 year)	€ 337	€ 337	€ 337	€ 337	€ 337
TOTAL OPERATIONAL COST	€ 1,057	€ 1,157	€ 1,157	€ 1,157	€ 1,157

OUTPUTS AND RETURNS

SALES AND PROFIT

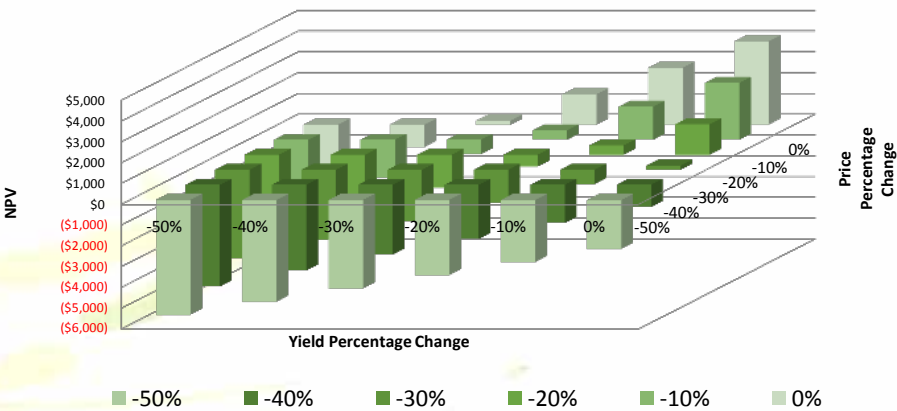
Revenue	Year 1	Year 2	Year 3	Year 4	Year 5
Quantity	720	3,000	3,000	3,000	3,000
Price	€ 1	€ 1	€ 1	€ 1	€ 1
Sales	€ 720	€ 3,000	€ 3,000	€ 3,000	€ 3,000

Proforma Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4	Year 5
Total Sales	€ 720	€ 3,000	€ 3,000	€ 3,000	€ 3,000
Total Costs	€ 1,057	€ 1,157	€ 1,157	€ 1,157	€ 1,157
NET PROFIT BEFORE TAX	€ (337)	€ 1,843	€ 1,843	€ 1,843	€ 1,843

RETURN ON EQUITY

An optimal case of investing in mint, accounting for an investment and operational costs required of 1,040 Euros, including discounting for cost of capital of 20%, yields a whopping 306% return on equity over a five-year period. The Net Present Value of the investment with a cost of capital of 20% is 2,766 Euros. The table below shows changes in NPV as price and quantity change.

MINT NPV VS YIELD & PRICE



OREGANO

INPUTS

INVESTMENTS REQUIRED

Investments	Amount
Plowing	€ 130
Rototilling	€ 100
Seeds kg	€ 150
Preparation of seeds for sowing	€ 12
Maintenance of seedlings	€ 48
Transplanting of seedlings	€ 300
Commercial Dryer	€ 6,000
TOTAL INVESTMENT	€ 6,740

OPERATIONAL COSTS & LABOR COSTS

Operational and Labour Costs	Year 1	Year 2	Year 3	Year 4	Year 5
Harrowing	€ 40	€ 40	€ 40	€ 40	€ 40
Irrigation	€ 60	€ 60	€ 60	€ 60	€ 60
Harvesting	€ 100	€ 200	€ 200	€ 200	€ 200
Dryer maintenance	€ 120	€ 120	€ 120	€ 120	€ 120
Dryer cost	€ 400	€ 400	€ 400	€ 400	€ 400
Investment amortization (20 years)	€ 337	€ 337	€ 337	€ 337	€ 337
TOTAL OPERATIONAL COST	€ 1,057	€ 1,157	€ 1,157	€ 1,157	€ 1,157

OUTPUTS AND RETURNS

SALES AND PROFIT

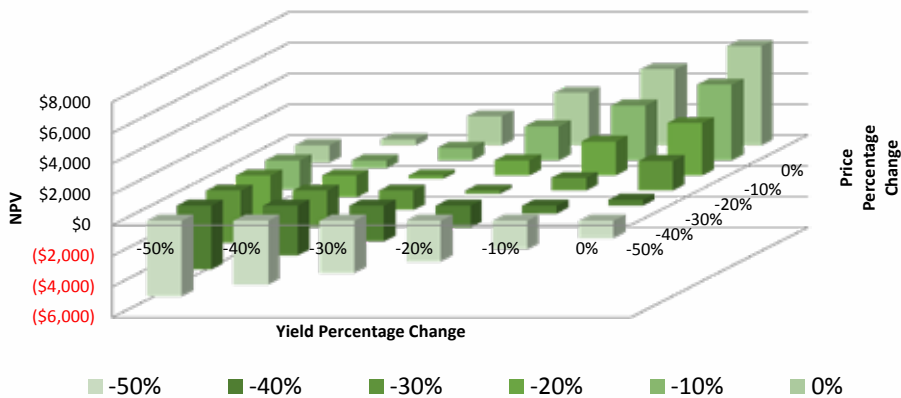
Revenue	Year 1	Year 2	Year 3	Year 4
Quantity	1,800	4,200	4,200	1,200
Price	€ 1	€ 1	€ 1	€ 1
Sales	€ 1,800	€ 4,200	€ 4,200	€ 1,200

Proforma Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4
Total Sales	€1,800	€4,200	€4,200	€ 1,200
Total Costs	€1,057	€1,157	€1,157	€1,157
NET PROFIT BEFORE TAX	€ 743	€3,043	€3,043	€ 43

RETURN ON EQUITY

Considering an investment and operational cost listed above, oregano yields a return on equity of 94%. With a cost of capital of 20% the Net Present value of this investment is 3,993 Euro. The table below shows changes in NPV as price and quantity of product sold changes.

OREGANO NPV VS YIELD & PRICE



SAFFRON

INPUTS

INVESTMENTS REQUIRED

Investment	Amount
Land preparation & soil analysis	€ 300
Manure	€ 500
Corms from Holland	€ 47,500
TOTAL INVESTMENT	€ 48,300

OPERATIONAL COSTS

Operational and Labour Costs	Year 1	Year 2	Year 3	Year 4
Labor force	€ 500	€ 1,000	€ 1,800	€ 4,000
Irrigation	€ 110	€ 110	€ 110	€ 110
TOTAL LABOR AND OPERATIONAL COSTS	€ 610	€ 1,110	€ 1,910	€ 4,110

YIELD PER HECTARE

Yield	Year 1	Year 2	Year 3	Year 4
Saffron Kg	1.00	3.00	5.00	8.00
Price €/Kg	€ 5,000	€ 5,000	€ 5,000	€ 5,000

OUTPUTS AND RETURNS

SALES AND PROFIT

Revenue	Year 1	Year 2	Year 3	Year 4
Saffron Kg	1.00	3.00	5.00	8.00
Price €/Kg	€ 5,000	€ 5,000	€ 5,000	€ 5,000
Sale of Saffron	€ 5,000	€ 15,000	€ 25,000	€ 40,000
Sale of Corms (2 mio x €0.05)				€ 100,000
TOTAL REVENUE	€ 5,000	€ 15,000	€ 25,000	€ 140,000

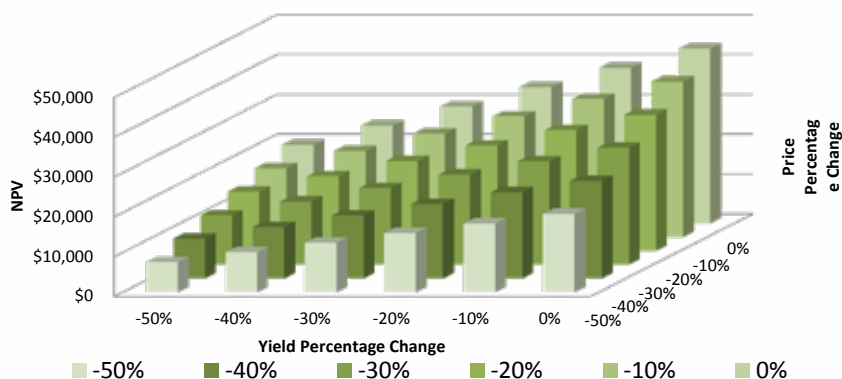
Costs	Year 1	Year 2	Year 3	Year 4
TOTAL LABOUR AND OPERATIONAL COSTS	€ 610	€ 1,110	€ 1,910	€ 4,110

Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4
Total Revenue	€ 5,000	€ 15,000	€ 25,000	€ 140,000
Total Labour and Operational Costs	€ 610	€ 1,110	€ 1,910	€ 4,110
NET PROFIT BEFORE TAX	€ 4,390	€ 13,890	€ 23,090	€ 135,890

RETURN ON EQUITY

Return on equity for an optimal case of investing in saffron, when accounting for the operational costs required of 4,110 Euro (as saffron is an perennial plant), including discounting for cost of capital of 20%, is a whopping 92% return on investment in one year.

SAFFRON NPV VS YIELD & PRICE



INPUTS

INVESTMENTS REQUIRED

Investments	Amount
Plowing	€ 130
Rototilling	€ 100
Manuar tons	€ 60
Seeds 1 -2 kg	€ 150
Fara - kultivimi ne leje 5-10 gr/1m2 - 300 - 500 bime/m2	€ 12
Maintanence of seedlings/Days	€ 48
Transplanting of seedlings - 1 worker/day*2000 - 3000 seedlings	€ 300
Comercial Dryer	€ 6,000
TOTAL	€ 6,800

OPERATIONAL COSTS & LABOR COSTS

Operational and Labour Costs	Year 1	Year 2	Year 3	Year 4
Harrowing	€ 40	€ 40	€ 40	€ 40
Irrigation	€ 120	€ 60	€ 60	€ 60
Harvesting	€ 150	€ 300	€ 300	€ 300
Dryer Maintenance	€ 120	€ 120	€ 120	€ 120
Dryer Cost	€ 400	€ 400	€ 400	€ 400
Investment amortization (20 years)	€ 340	€ 340	€ 340	€ 340
TOTAL	€ 1,170	€ 1,260	€ 1,260	€ 1,260

OUTPUTS AND RETURNS

SALES AND PROFIT

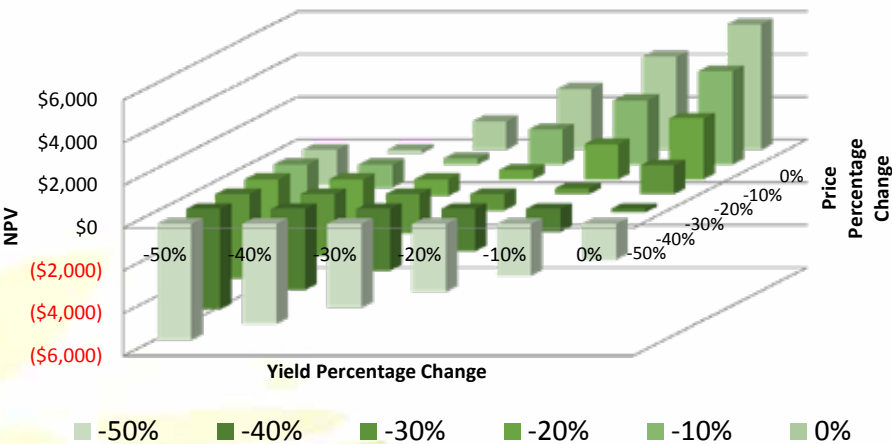
Revenue	Year 1	Year 2	Year 3	Year 4
Quantity	1,800	4,200	4,200	1,200
Price	€ 1.0	€ 1.0	€ 1.0	€ 1.0
Total Sales	€ 1,800	€ 4,200	€ 4,200	€ 1,200

Proforma Profit and Loss Statement	Year 1	Year 2	Year 3	Year 4
Total Sales	€ 1,800	€ 4,200	€ 4,200	€ 1,200
Total Costs	€ 1,170	€ 1,260	€ 1,260	€ 1,260
Net Profit Before Tax	€ 630	€ 2,940	€ 2,940	€ (60)

RETURN ON EQUITY

Average return on equity is at 88% for a period of four years with an optimal case of investment of 2,800 Euros. Investment in sage yields a positive Net Present Value of 3,665 Euros, when accounting for a 20% cost of capital. The table below shows changes in NPV as price and quantity changes.

SAGE NPV VS YIELD & PRICE







INFORMATION SOURCES WITH ACKNOWLEDGEMENTS TO:

USAID/Kosovo Agriculture Growth and Rural Opportunities Program

USAID/Kosovo New Opportunities for Agriculture Program (completed in Feb. 2015)

Kosovo Agriculture Trade Balance 2007 to 2013 - Helvetas Swiss Intercooperation
Kosovo

Kosovo Green Report 2014 – Ministry of Agriculture, Forestry and Rural Development

Scoping Study of the Agribusiness Sector in Kosovo – Recura - Agribusiness sector
scoping study prepared for the 'EYE' Project

