

DENMARK

Fostering local development in rural areas

Location

Nørre Aaby

Programming period

2014 – 2020

Priority

P6 – Social Inclusion and Economic Development

Measure

M19 - LEADER/CLLD

Funding (EUR)

Total budget 224 831

EAFRD 89 932

Private 134 899

Project duration

2017 – 2018

Project promoter

HERRENS MARK ApS

Contact

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Website

<https://herrens-mark.dk/production/?lang=en>

A micro company producing organic herbal extracts collaborated with a university and the positive results increased the demand for its products - thus generating the need for investments to increase the company's production capacity.

Summary

The beneficiary is an ecologically driven farm that produces dandelion and red clover extracts, which are sold in the country's health food stores. In recent years, the farm has entered into collaboration with Aarhus University Hospital in order to investigate the effects of red clover extract on the reduction of hot flushes amongst women in menopause and the slowing down of the development of osteoporosis.



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The research has been extremely successful and published in international health journals in the spring of 2017. The beneficiary has therefore experienced a substantial increase in demand and therefore been given a subsidy aimed at increasing production facilities and storage capacity.

Results

In the summer 2017, the farm produced 300.000 litres of red clover extract and expects to increase that production next year.

Created 2 additional jobs,

Increased by 49% the yearly revenue,

Increase by 40% the gross profits

Increased by 79% the farm's result before taxes.

Lessons & Recommendations

- ❑ While the production facilities/production line is not innovative, the method by which the extract is produced is the innovative aspect.
- ❑ One interesting aspect of this project is that it fits well within the objectives of the Cooperation measure (M16) to facilitate collaborations between research/knowledge institutions, primary production and retail/marketing. This project is not funded under M16 but is a good example of small Danish entrepreneurs being able to initiate collaborations aimed at increased innovation, which is often considered difficult to realize for micro and small primary producers in many Member States.

Context

Herrens Mark is a micro company that produces organic herbal extracts which are sold in all Danish health food stores. The production of extracts stems from a 50-year-old tradition of dandelion extract, and red clover extract has been added in recent years. The extracts are obtained from organic herbs grown on the fields of the farm, processed at the farm's own production facilities and packed in the farm's own packing facility. The need for the project arose when the Red Clover Extract was tested in two major patient trials at Aarhus University Hospital. The first patient trial documented that the high level of plant oestrogens in the red clover extract could remedy symptoms such as hot flashes, sweating, restlessness, and other nuisances during women's menopause. Over a three-month-period, sweat secretion decreased by 32% and the number of hot flushes decreased by 28%. The second patient trial demonstrated that the extract can also slow the development of bone loss (osteoporosis).

The test results were documented over three articles by a Business PhD and published in the scientific journal PlosOne and the American Journal of Medical Nutrition in spring 2017. The great scientific results led to a collaboration with one of Germany's largest health food wholesalers with sales throughout Germany. This new business partner was willing to market the products of the beneficiary, and had at the onset of the project ensured that two German health food magazines, including Natürlich, published in 500 000 copies, would also publish the research results in April 2017. Consequently, the beneficiary needed to expand production facilities in order to be able to meet the rising demand.

Objectives

With the business concept in place and an established demand for its products, the farm wished to expand the business.

Activities

The beneficiary applied for two project grants: One for the construction of a new production building and another consisting of new production facilities and machinery,

management (software) of the entire production line as well as increased drainage facilities and storage tanks with a capacity of 320 000 litres. This case covers the second project (the production hall is not eligible under the LEADER measure in Denmark). The beneficiary purchased a used enzyme reactor from the energy company Dong in the autumn 2016, which was envisioned to form the basis of the considerable expansion of production in the new production facilities after a rebuild of the enzyme reactor.

The project activities were quite simple as the grant was strictly associated with investments in physical assets and the expansion of the production facilities, within the newly constructed production building. It did not encompass collaboration activities, marketing etc. The expansion consisted of three overall activities

- A. Purchase and installment of production equipment. This included a wagon for the dosing of herbs to the reactor, purchase and installment of band/ribbon for reactor, rebuild of reactor, increase of safety and reactor, screw pumps from reactor to press, buffer tank (and rebuild), waste bands and a filling machine.
- B. Development of product line management including the installation, test and configuration of the software.
- C. Purchase and set up of storage tanks, 16 pieces of 20 litres.

The project commenced as soon as the commitment as the beneficiary needed to be ready for production in May 2017. However, the production line was only ready around 1 June. After some start-up difficulties, the production line started running satisfactorily already during summer 2017. Packing machines were installed in the expanded packing room.



Main Results

In the course of the summer 2017, the farm produced 300 000 litres of red clover extract and expects to increase that production next year.

This increased capacity has resulted in the following increases: 2 additional jobs, 49% increase of yearly revenue, 40% increase in gross profits and 79% increase of the farm’s result before taxes.

As for the environmental benefits, the project has increased the conversion of agriculture to organic farming, as both extracts have ecological status.

Furthermore, red clover is an interesting crop for ecologists and an important crop in organic crop rotation. It is often a problem for organic farming to ensure enough nitrogen for their crops. Red clover, however, produces nitrogen wherefore red clover fields do not need fertilizing. At the same time, they leave plenty of nitrogen for the subsequent crops. Large areas with red clover therefore decreases the environmental impact on the fields during crop rotation. Consequently, the beneficiary is currently establishing collaboration agreements with organic farmers in the vicinity about the cultivation of red clover as part of their crop rotation: They will be able to sell the red clover to the beneficiary while fixing nitrogen to the subsequent crop, which in turn may further

increase the capacity and economic benefits of the project for both the beneficiary and collaborating ecologists in the region.

Lastly, the farm is still collaborating with Aarhus University Hospital, and are currently seeking funding for a new patient trial on the effect of dandelion extract on rheumatoid arthritis.

Key lessons

As for the product itself, the beneficiary has applied for a patent on the production method of the red clover extract, wherefore this is difficult to transfer. While the production facilities/production line is not innovative, the method by which the extract is produced is the innovative aspect.

One interesting aspect of this project is that it fits well within the objectives of the Cooperation measure (M16) to facilitate collaborations between research/knowledge institutions, primary production and retail/marketing. This project is not funded under M16 but is a good example of small Danish entrepreneurs being able to initiate collaborations aimed at increased innovation, which is often considered difficult to realize for micro and small primary producers in many Member States.



Additional sources of information

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