PROJECT PROPOSAL POSSIBILITY OF PRODUCTION AND PROCESSING OF SOFT FRUITS ORGANIZATION IN AREA OF CENTRAL BOSNIA IN THE PERIOD FROM 2018 - 2024



Municipalities:

Federation of Bosnia and Herzegovina

Cantons:

Sarajevo Canton – Municipalities : Ilidža, Hrasnica and Ilijaš Doboj Canton – Municipalities: Breza, Vareš and Visoko Central Bosnia Canton – Municipalities: Busovača, Kiseljak, Fojnica, Kreševo

Capacity: 1925 private farm properties in 0.30 ha = 577.5 ha

Author of the Project: Nudžeim Gvozden

Tel: 062/ 738 335

Types of Fruits and harvest information

Briefly - Blackberry

Main components of this fruit include essential oils, tannins, pectin's, succinic, malic, oxalic, lactic and salicylic acid. Vitamin C is also important. Blackberry leaves are used with chronic diarrhea, and for hemorrhoids treatment. Tea is prepared with one tea spoon of blackberry leaves for on cup, prepared as infusion. Fresh berries are used for production of syrup, fruit juice, jams, compote and blackberry wine.

Briefly – Blackberry

Components and use: Raspberry leaves contain tannins, organic acid and other components. Berries contain Vitamin C, pectin's and sugar. Raspberry leaves are used for diarrhea, and are recommended in the treatment of skin rash and chin cough. Smashed raspberry leaves put in honey can be used for eye inflammation and erysipelas. Berries are used for the production of fresh and healthy juices, syrups, jams and marmalade.

Briefly - Strawberry

Components and use: Strawberry leaves, especially wild strawberries, contain tannins, mucus, organic acid, iron compounds, etheric oil and Vitamin C. Tea made of dry leaves is important for blood cleaning, in the treatment of intestinal catarrh and gastritis, diarrhea and hemorrhoids. Wild strawberry infusion is prepared so that we put 20-25 grams of wild strawberry root into 1 liter of water.

Harvest

The crown, leaves, entire plant and berries of a strawberry can be used as a drug. Strawberry blooms long period of time, so it can be harvested during all summer. Leaves are dried in a thin layer on an airy place. Dried leaves must obtain its green color. Four kg of fresh strawberry produce one kg of dry leaves. Strawberry crown and root can be removed in early spring or late fall. Before drying leaves must be cleaned and washed. The taste of dried root and crown is very bitter. When it is dried it is packed in strawbeds.

Annual average planning – Hectares and households

| Types of Fruits | Units of | Per household | Total hectares | Annual average p | planting | |
|-----------------|-------------|---------------|----------------|------------------|----------|--|
| | measurement | | | Households | Hectares | |
| Raspberry | ha | 0.20 | 385.00 | 275 | 55.00 | |
| Strawberry | ha | 0.05 | 96.2 | 275 | 13.75 | |
| Blackberry | ha | 0.05 | 96.2 | 275 | 13.75 | |
| Total | ha | 0.30 | 577.5 | 275 | 82.50 | |

Harvest expected according to types of fruits in 2024 – sales of the frozen products

| Types of Fruits | Units of | Productivity in kg | Total productivity | Frozen products | |
|-----------------|-------------|--------------------|--------------------|-----------------|------------|
| | measurement | per 1 ha | | Eu | Total Euro |
| | | | | ro/ | |
| | | | | kg | |
| Raspberry | 385.00 | 15.00 | 5.775 | 1.84 | 10.266.229 |
| Strawberry | 96.25 | 12.00 | 1.155 | 1.12 | 1.299.192 |
| Blackberry | 96.25 | 15.00 | 96.2 | 1.43 | 2.067.255 |
| Total | 577.50 | | 8.374 | | 13.632.676 |

Note: It is predicted that the placement of about 90% of the total amount produced as the frozen "Rolend" fruit on the European market.

Project goals:

- 1. Financial goal: Profit realization, the only criteria for successful business in private farm households and on farms which are involved in organization of production, processing, freezing and and fruit export.
- 2. Human goal: Activating workforce in the process of production, processing, placement, thus creating conditions for better life in this area.
- 3. Production target: Development of soft fruits production with investments.
- 4. Market goal: Reappear on the market of frozen soft fruits
- 5. Foreign exchange balance of payment: Implementation of this project will help improve foreign exchange balance of payment of this country, since the import rate is less than 10%.
- 6. Processing capacities: Rational and profitable use of processing and cold storage capacities.

Estimate value of the investment:

For one property:

| -total | 6.387 Euro |
|--|------------|
| - Part that is financed by a loan | |
| (Seedlings, mineral fertilizers, protective material and | 1.866 Euro |
| -Participation of the farmer – 70% | |
| (Work, materials, machines) | 4.520 Euro |

For 1.925 households:

| - 1 | total budget | 12.294.575 Euro |
|-----|-----------------------------------|-----------------|
| - | Amount of a loan – 30% | 3.592.771 Euro |
| - | Participation of the farmer – 70% | 8.656.606 Euro |

Period of Project Implementation

Plant growth in years: 2018, 2019, 2020, 2021,2022,2023,2024

<u>Start of Production – crop harvest and profit:</u>

Year 2019 (Profit 1.949.909 Euro)

Full effect of the Project:

Year 2024 (Profit 13.632.677 Euro)

Effect of the project in relation to unemployment:

Employment in private households

In equivalent (conditional jobs) 1.925 workers

Agricultural experts in organizations of

Primary agricultural production 30 workers

Employed in processing capacities

(Full-time job) 80 workers

Employed in processing industry

(Part-time or seasonal work) 160 workers

Total number of employed people: 2.195 workers

INTRODUCTORY NOTES

The number of 28. 000 people looking for a job through Employment Service agencies and which is almost equal to a number of people who are employed, should act as an alert for all relevant factors in the official government structures: municipalities, cantons and Federation and they should make a long term effort to find opportunities to create new job opportunities. High unemployment rate is a leading problem in this area, which directly or indirectly generates other problems, and slows down economic development and makes political stabilization of Federation of BiH more difficult. Taking into account that mass employment in jobs outside agriculture is almost impossible, it is necessary to provide income from agriculture, since there are no other sources of income. Since we talk about households with little farmland, it is clear that the available plough land have to be used in the best possible way that is for the production of the products like:

- Active working. Which means that they employ many people per area density?
- With high incomes, that is they give 7669 Euro and more of production value per one hectare,
- High income, those with high income 5112 Euro or more per 1 ha,
- Highly accumulative, where accumulation is above average,
- Interesting for the market and export oriented, because that is basic guarantee of large amount of production.

Products that satisfy these criteria and demands are, first of all, soft fruit, in this case strawberry, blackberry and raspberry.

With this developmental concept we would anticipate time scheduled growth of production of plant nursery, crop production and processing capacities, firstly adequate contemporary freezing capacity, with the period of implementation from 2019 to 2024.

From the collective preview of the basic strategic data for these 10 municipalities, we can see the need for the implementation of this project.

Basic segments (phases) of this Project are:

- Production of quality raspberry, strawberry and blackberry seedlings for total needs of the Project
- Scheduled mass production of berries on private farm households,
- · Freezing and hot processing,
- Sales export to European market

Processing capacities – cold storages and hot processing are guarantee that the offered amount of fruit will be taken on time – raw materials from fields – processed, frozen and ready to sell – export. Processing capacities provide scheduled organization of harvest, transport, packaging and assets for the payment of the taken fruits. This Project is unique and complete, and during its implementation its parts are timed and with firm and detailed contracts mutually secure on the period of 12 years. Production of quality raspberry, strawberry and blackberry seedlings for this Project will be organized on the appropriate locations in the area of the Project. Production of quality seedlings is very important and it will be under complete supervision of the author of the Project from Sarajevo. For the construction of plant nursery best virus free materials from local and foreign plant nurseries will be used. Organizers of the productions – investors are: existing and future agricultural cooperatives, or any other legal entity i.e. commercial enterprises, groups of agricultural workers, processing industry, holding companies, private companies, etc.