



## HAZELNUT PRODUCTION ON 1 HECTAR

Investor: PRO B2ME DOO

Project Location: Zrenjanin

Currency: EUR

Date Activity: 20.03.2022

### Description and Goal of the Investment

The investor owns 1 hectare of land on which he sows field crops (wheat, corn) and annually makes a net profit of 1000 - 2000 EUR. With this analysis, he intends to examine whether it is more profitable to form hazelnut plantations on it. Considering that the default program for reaching the full volume of production envisages a maximum of four years, and hazelnuts reach full yield in the 5th, and some varieties in the 6th year, the introduction of the maximum yield in the 4th year does not significantly affect financial effects project. Since the analysis covers the first 15 years, and hazelnut plantations last over 40 years, the financial effects may be even better, but not significantly, as weather conditions periodically significantly reduce the yield (every 3 to 4 years). The analysis shows high profitability in the years of full yield, but that due to the maintenance of liquidity in the first 3 years, it is necessary to provide additional funds or plant vegetables between the rows. The projections do not include the work of household members, because the owner intends to generate income for the farm from the accumulation of the project, taking into account liquidity according to financial flow (cash flow on the account), because inflows and outflows during the year may be uneven, depending on implementation and collection, the Budget shows that it will be able to withdraw significantly more per year from that hectare for personal consumption. than from current cereal revenues. The high value of NPV (net present value) shows that from the accumulation of the project, if it does not spend everything for personal consumption, it will be able to expand its plantations and business even before the return on investment. If the farm would like to live only from growing hazelnuts, it would have to have at least 5-6 hectares of orchards.

The life of the project

Tax of profit

Discount Rate

Realization of Investment in 1st  
year

Realization of Investment in  
2nd year

Estimation of Future Annual  
Inflation

15

10

3

2

0

3

Investment value and investment dynamics

| ! Items                        | Invested  |                                |              | Year 1 |            |              | Year 2 |            |              |
|--------------------------------|-----------|--------------------------------|--------------|--------|------------|--------------|--------|------------|--------------|
|                                | Price     | Durability                     | Amortization | Price  | Durability | Amortization | Price  | Durability | Amortization |
|                                | EUR       | (Years)                        | Depreciation | EUR    | (Years)    | Depreciation | EUR    | (Years)    | Depreciation |
| Projects, permits, supervision | 300       | 0                              | 0            | 0      | 0          | 0            | 0      | 0          | 0            |
| Land                           | 5.000     | 0                              | 0            | 0      | 0          | 0            | 0      | 0          | 0            |
| Fence                          | 0         | 0                              | 0            | 1.500  | 15         | 100          | 0      | 0          | 0            |
| Water well                     | 0         | 0                              | 0            | 400    | 15         | 27           | 0      | 0          | 0            |
| Seedlings 500x5 eur / piece    | 0         | 0                              | 0            | 2.500  | 40         | 63           | 0      | 0          | 0            |
| Hazelnut vacuum cleaner        | 0         | 0                              | 0            | 0      | 0          | 0            | 650    | 15         | 43           |
| Cultivator                     | 1.200     | 15                             | 80           | 0      | 0          | 0            | 0      | 0          | 0            |
| Other equipment                | 0         | 0                              | 0            | 400    | 6          | 67           | 0      | 0          | 0            |
|                                | 0         | 0                              | 0            | 0      | 0          | 0            | 0      | 0          | 0            |
|                                | 0         | 0                              | 0            | 0      | 0          | 0            | 0      | 0          | 0            |
|                                | 0         | 0                              | 0            | 0      | 0          | 0            | 0      | 0          | 0            |
| Credit processing              | 0         | 0                              | 0            | 0      | 0          | 0            | 0      | 0          | 0            |
| Working capital                | 0         | 0                              | 0            | 0      | 0          | 0            | 116,67 | 0          | 0            |
| Total                          | 6.500     | 0                              | 80           | 4.800  | 0          | 257          | 766,67 | 0          | 43           |
|                                |           |                                |              |        |            |              |        |            |              |
| Total Investment               | 12.066,67 | Working capital turnover ratio |              | 6      |            |              |        |            |              |

Sources of financing for new investments

|      | Sources      | Year 1 | Year 2 | Total |
|------|--------------|--------|--------|-------|
| Loan | Own capital  | 4.800  | 767    | 5.567 |
|      | Amount       | 0      | 0      | 0     |
|      | Repayment    | 0      | 0      | 0     |
|      | Grace period | 0      | 0      | 0     |
|      | Interest     | 0      | 0      | 0     |
|      | Shareholders | 0      | 0      | 0     |
|      | Donations    | 0      | 0      | 0     |
|      | Total        | 4.800  | 767    | 5.567 |

### Loan repayment plan

[illegible]

Loan in Year 1

[illegible]

Loan in Year 2

[illegible]

Total loans

[illegible]

## Operating income and expenses

At current prices (excluding inflation)

| Items                      | Unit of             | Unit  | Annual volume |        |        |           | Annual amount |        |        |           |
|----------------------------|---------------------|-------|---------------|--------|--------|-----------|---------------|--------|--------|-----------|
|                            | measure             | Price | Year 1        | Year 2 | Year 3 | Next year | Year 1        | Year 2 | Year 3 | Next year |
| INCOMES                    |                     | 0     | 0             | 0      | 0      | 0         | 0             | 700    | 4.250  | 7.500     |
| Sale of unpeeled hazelnuts | kg                  | 5     | 0             | 140    | 850    | 1.500     | 0             | 700    | 4.250  | 7.500     |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
| EXPENSES                   |                     | 0     | 0             | 0      | 0      | 0         | 560           | 610    | 2.440  | 2.650     |
| Fertilizer and chemistry   | eur                 | 1     | 400           | 450    | 500    | 500       | 400           | 450    | 500    | 500       |
| Fuel                       | lit                 | 1,6   | 100           | 100    | 150    | 200       | 160           | 160    | 240    | 320       |
| Packaging                  | eur                 | 1     | 0             | 0      | 250    | 380       | 0             | 0      | 250    | 380       |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
|                            |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
| Gross wages of workers     | Number of employees | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
| Average per month          | Gross wages         | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
| Gross management salaries  |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 0      | 0         |
| Maintenance                |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 1.000  | 1.000     |
| Insurance                  |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 150    | 150       |
| Marketing                  |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 100    | 100       |
| Other                      |                     | 0     | 0             | 0      | 0      | 0         | 0             | 0      | 200    | 200       |
| OPERATIONAL RESULT         |                     | 0     | 0             | 0      | 0      | 0         | -560          | 90     | 1.810  | 4.850     |

## Income statement

| Year               | 1    | 2    | 3     | 4     | 5     | 6     | 7     | 8     | 9     | 10    | 11    | 12     | 13     | 14     | 15     |
|--------------------|------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|--------|--------|
| INCOMES            | 0    | 700  | 4.378 | 7.957 | 8.195 | 8.441 | 8.695 | 8.955 | 9.224 | 9.501 | 9.786 | 10.079 | 10.382 | 10.693 | 11.014 |
| Operating expenses | 560  | 610  | 2.513 | 2.811 | 2.896 | 2.983 | 3.072 | 3.164 | 3.259 | 3.357 | 3.458 | 3.561  | 3.668  | 3.778  | 3.892  |
| EBITDA             | -560 | 90   | 1.864 | 5.145 | 5.300 | 5.459 | 5.622 | 5.791 | 5.965 | 6.144 | 6.328 | 6.518  | 6.714  | 6.915  | 7.122  |
| Amortization       | 294  | 380  | 380   | 380   | 380   | 380   | 380   | 380   | 380   | 380   | 380   | 380    | 380    | 380    | 380    |
| EBIT               | -854 | -290 | 1.484 | 4.765 | 4.920 | 5.079 | 5.242 | 5.411 | 5.585 | 5.764 | 5.948 | 6.138  | 6.334  | 6.535  | 6.742  |
| Interest           | 0    | 0    | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      |
| EBT                | -854 | -290 | 1.484 | 4.765 | 4.920 | 5.079 | 5.242 | 5.411 | 5.585 | 5.764 | 5.948 | 6.138  | 6.334  | 6.535  | 6.742  |
| Tax of profit      | 0    | 0    | 148   | 477   | 492   | 508   | 524   | 541   | 558   | 576   | 595   | 614    | 633    | 653    | 674    |
| NET PROFIT         | -854 | -290 | 1.336 | 4.289 | 4.428 | 4.571 | 4.718 | 4.870 | 5.026 | 5.187 | 5.353 | 5.524  | 5.700  | 5.881  | 6.068  |

The years are not calendar, but are calculated from the day of providing financial resources.

## Cash Flow

| Year                        | 1     | 2     | 3     | 4     | 5     | 6      | 7      | 8      | 9      | 10     | 11     | 12     | 13     | 14     | 15     |
|-----------------------------|-------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1. INFLOWS                  | 4.800 | 1.467 | 4.378 | 7.957 | 8.195 | 8.441  | 8.695  | 8.955  | 9.224  | 9.501  | 9.786  | 10.079 | 10.382 | 10.693 | 11.014 |
| Equity                      | 4.800 | 767   | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Loans                       | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Shareholders                | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Donations                   | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Shareholders                | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Operating income            | 0     | 700   | 4.378 | 7.957 | 8.195 | 8.441  | 8.695  | 8.955  | 9.224  | 9.501  | 9.786  | 10.079 | 10.382 | 10.693 | 11.014 |
| 2. OUTFLOWS                 | 5.360 | 1.377 | 3.275 | 3.884 | 3.427 | 3.531  | 4.039  | 3.749  | 3.862  | 3.979  | 4.100  | 4.224  | 4.752  | 4.484  | 4.619  |
| Investments                 | 4.800 | 767   | 613   | 597   | 40    | 41     | 42     | 43     | 45     | 46     | 48     | 49     | 50     | 52     | 53     |
| Payment of old obligations  | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Replacement of fixed assets | 0     | 0     | 0     | 0     | 0     | 0      | 400    | 0      | 0      | 0      | 0      | 0      | 400    | 0      | 0      |
| Operating expenses          | 560   | 610   | 2.513 | 2.811 | 2.896 | 2.983  | 3.072  | 3.164  | 3.259  | 3.357  | 3.458  | 3.561  | 3.668  | 3.778  | 3.892  |
| Loan annuities              | 0     | 0     | 0     | 0     | 0     | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      |
| Tax of profit               | 0     | 0     | 148   | 477   | 492   | 508    | 524    | 541    | 558    | 576    | 595    | 614    | 633    | 653    | 674    |
| FINANCIAL FLOW (1-2)        | -560  | 90    | 1.103 | 4.072 | 4.768 | 4.910  | 4.656  | 5.207  | 5.362  | 5.521  | 5.686  | 5.855  | 5.630  | 6.210  | 6.395  |
| Financial flow cumulative   | -560  | -470  | 633   | 4.705 | 9.473 | 14.383 | 19.039 | 24.246 | 29.607 | 35.129 | 40.814 | 46.670 | 52.300 | 58.509 | 64.904 |

## Note

From the future accumulation, the program automatically included in the projections the replacement of fixed assets with a shorter lifespan than the project life Residual (residual value of the project) after the project life is not calculated in the last year of the project life because the market value of fixed assets after the end of the project life cannot be realistically estimated, and can significantly affect the financial effects.



## Financial results of the investment

| Parameter                           | Amount     |
|-------------------------------------|------------|
| Investment                          | 12.067 EUR |
| Average Income                      | 7.867 EUR  |
| Average Net profit                  | 4.121 EUR  |
| $\Sigma$ Net profit / Investment    | 5,12       |
| Liquidity in all years              | No         |
| Average Net profit / Average Income | 52,38 %    |
| NPV (net present value)             | 35.630 EUR |
| IRR (internal rate of return)       | 21,21 %    |
| Return time discounted              | 5 Years    |

## SWOT Analysis

### Strength

Your strengths can be qualified staff, team, experience, available resources (technological equipment, raw material base), market position, innovative products, investment and creditworthiness.

### Weaknesses

Poor creditworthiness, lack of team, experience, qualified staff, creditworthiness, ie. financial resources (especially for beginners in business), inflexibility (poor adaptation to market changes), poor financial analysis to prove the profitability of the idea and attract co-investors...

### Opportunity

Innovative product, developed more advanced technology, profitability of the idea, favorable market situation, ie. favorable economic-socio-political environment,....

### Threats

Unfavorable economic, socio-political environment, lack of state incentives and favorable loans,especially for business start-ups, strong competition in the planned activity, strong competition that quickly develops more innovative products.

## Appendix

| Agency        | Standard and Poor's                     | Fitch Ratings                           | Moody's Service                         |
|---------------|---|---|---|
| Rating        | BB+/stable appearance <a href="#">↗</a> | BB+/stable appearance <a href="#">↗</a> | Ba2/stable appearance <a href="#">↗</a> |
| Date Activity | 6/11/2021 <a href="#">↗</a>             | 9/3/2021 <a href="#">↗</a>              | 3/12/2021 <a href="#">↗</a>             |
| Activity      | Rating confirmed <a href="#">↗</a>      | Rating confirmed <a href="#">↗</a>      | Increased rejting <a href="#">↗</a>     |

You can download the current Rating via the link [https://nbs.rs/sr/finansijsko\\_trziste/informacije-za-investitore-i-analiticare/rejting\\_RS/](https://nbs.rs/sr/finansijsko_trziste/informacije-za-investitore-i-analiticare/rejting_RS/). Attached is the latest rating rating from STANDARD & POOR'S, MOODY'S INVESTORS SERVICE and RATING FITCH. It is important if foreign investments or foreign investors are planned. More in the blog <https://investasistent.com/investiciona-i-kreditna-sposobnost-investitora/>

## Note

An investment is eligible for realization if all indicators in the Financial Result have recommended values, if the SWOT analysis is realistic (more in the blog [SWOT Analysis](#)) and if the investment and creditworthiness is realistically assessed and accepted by a potential lender or co-investor (more in the blog [Investment and Investor Creditworthiness](#)). The key parameters on the basis of which it is concluded whether the investment is financially justified are: NPV (Net present value), which must be positive, and shows how much the investor will earn in the project life at current prices, IRR (internal rate of return) which is an indicator of interest invested capital, which in the basic variant must be at least 2 times higher than the discount rate, Discounted return on investment, which must be shorter than the life of the project, Average annual Net profit min 15-20% of average income. If the budget shows a loss on the Income Statement and / or illiquidity in the Financial Flow (often occurs in the first years of the project life if production is gradually established and / or due to the need to conquer the market, due to employee salaries, depreciation and due loan installments), and other above parameters are good, does not mean that you should give up the investment, but indicate that in those years it is necessary to invest additional external funds to maintain liquidity.

## Disclaimer

We did not check the reliability of the input data (investment value, income and expenses, SWOT analysis), as well as investment and creditworthiness. Therefore, before starting the investment, all entered data should be checked again, especially the procurement and sales market.

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If you want our opinion on the investment in question, contact our consultants by [e-mail](#) with specific questions.