Abstract

The aim of the thesis is to determine the economic efficiency of production factors utilization in S.C. AGROINDUSTRIALA BUCIUM S.A.

The research objectives are: to study the history and importance of grape production; to determine the viticulture development level worldwide and in Romania; to characterize viticultural areas in Romania; to identify the research stage in regards to production factors: in regards to concept, system and typology; the elaboration of the diagnosis analysis at S.C. AGROINDUSTRIALA BUCIUM S.A. in order to specify the technical-economical markers and the conditions in which the research has been carried out; to determine the production factors influence on the economic efficiency of grape production at S.C. AGROINDUSTRIALA BUCIUM S.A.

The research methods utilized were: scientific documentation, statistical indicators analysis, technical-economic diagnosis, economic analysis.

The used information had different sources as: internal accounting records, official documents supplied by the Ministry of Public Finances, statistical data taken from national databases as the National Statistics Institute and external as FAOSTAT.

The period in which the research has been realized is between 2004 and 2008. This interval was limited by the existence of information necessary to the research that came from the Ministry of Public Finances and those from the Romanian Statistic Yearbook.

The wine production – important area of expertise in some agricultural exploitation in Romania, presents importance from a food, industrial, agricultural technique – technological, ambiental, export and profit source point of view.

The worldwide average surface registered in the 2000 – 2007 period for example was of 7389.1 thousands ha cu variations from 7341.2 thousands ha in 2000 to 7497.7 in 2003. The average variability was of 2.1. %. The average size of vineyards in Europe was of 4218.6 thousands ha with 8.2% variability and from the European Union of 3784.9 thousands ha with 7.7% variability. In these two areas, the maximum surface was held in 2000 when, in Europe, were registered 4375.5 thousands ha and in the European Union 3920.2 thousands ha.

The average grape production is higher worldwide in comparison with other researched areas with an average of 8796.6 kg/ha and a 10.4% variability. In Europe and the European Union, the average values of the production obtained per surface unit were close , being of

7106.9 kg/ha and respectively 7288,4 kg/ha with a 16.3% variability and respectively 16.4%. The indicators` variability has been determined as a percentage ratio between the indicators` annual dynamic and the indicators` average in the 2000 – 2007 period.

According to data taken from FAOSTAT, the total wine production obtained worldwide in the 2000 – 2007 period was, in average, of 277321.1 thousands hl of which 187368.5 thousands hl were obtained in Europe and 174309.4 thousands hl in the European Union. In Romania, it was obtained an average production of 5226.2 hl representing 1.9 % of the global production, 2.8 % of the European production and 3.0 % from the production obtained in the European Union.

Romania held in the 2000 – 2007 period, in average, a surface of 212.8 thousands ha vineyards representing 5.6 % of the vine cultivated surface in the European Union, 5.0 % of that of Europe and 2.9 % of the vine cultivated surface worldwide. The wine import in the 2000 – 2007 period was worldwide of 69847 thousands hl wine, on the continent this registering an average of 52728 thousands hl and in the European Union of 45413 thousands hl with variations of 41.0 %, 33.3 % and, respectively, 30.6 %. In Romania the average wine quantity imported was of 150 thousands hl with a variation of 483.6%.

The evolution of wine export value is expressed through an annual increase worldwide with 11.0 %, 9.5 % at European and European Union level and in Romania of 4.5 %.

In Romania there are a total of 37 vineyards in which there are 123 wine centers, at which you add 40 independent wine centers, situated outside the vineyards. The number of wine areas is very large.

Situated in the N-E part of the country, the Bucium Wine Center, together with the Copou – Sorogari Wine Center, Uricani and Galata Wine Center constitute the so called “wine belt” of Iasi, occupying 10-30% of the agricultural area.

S.C. „Agroindustriala Bucium” S.A. Iasi was established following the reorganization of the old State Agricultural Enterprise (IAS) Bucium, agricultural unit established in 1949.

S.C. AGROINDUSTRIALA BUCIUM S.A. presents a functional type organizational structure. The motivation behind the utilization of this sort of an organizational structure resides in the fact that this structure is the best for the companies vertically integrated which are predominantly oriented towards production.

In the researched period, the critical turnover registered an average reduction of 613,088.1 lei/year because of the activity volume reduction.

The wine production activity at S.C. AGROINDUSTRIALA BUCIUM S.A. is characterized though significant fluctuations from profit to loss and backwards. So the biggest gross profit was obtained in 2004 when this had a value of 556,128 lei and the minimum of this

indicator was registered in 2008 when it registered a value of 102,175 lei. Alternatively with obtaining this profit losses were registered with a maximum level of 854,826 lei in 2005 and 377,049 lei in 2007. For the entire researched period an average loss of 197,767 lei/year was registered.

At S.C. AGROINDUSTRIALA BUCIUM S.A. the work productivity expressed in natural unit had a descending evolution from 2004 to 2008 with important variations depending on climatic factors and surface reduction.

The maximum level of this indicator was reached in 2004 with a value of 20.4 kg/man-hour followed by the minimum level registered the following year with a value of 3.8 kg/man-hour. The average productivity was of 12.7 kg/ man-hour with an annual reduction of 3.3 kg/man-hour representing 26.2% from the intervals` average.

At least in regards to the yield expressed in natural units it shows that the way of work force utilization is increasingly ineffective from one year to another even if through management decisions it was proceeded to staff reduction together to production capacity reduction.

The work productivity expressed through value units had a different tendency than the work productivity expressed through natural units because, if the value registered in 2004 was bigger than that in 2008, 10.4 lei/man-hour than 9.7 lei/man-hour, this increased compared to the average with 22.4 %. The average annual productivity was of 7.8 lei/man-hour and the annual increase was of 1.7 lei/man-hour.

The maximum level of the capital economic efficiency index was reached in 2004 with a value of 220.0 followed by the minimum level registered in 2006 with a value of 82.3 lei. In exchange, because of the losses registered in 2005 and 2007, in fact, it obtained the annual loss at 1000 lei invested capital which is of 423.9 lei and, respectively, 182.1 lei.

The rentability evolution depending on the work force necessary coverage degree registers a similar trend to that of the gross profit evolution. So, to a 100 % work force necessary coverage no profit is registered, at 110 % the profit rate is of 5.0 %, growing with 13.9 % at a work force necessary coverage degree of 120 %.

The professional experience analysis over the grape production economic efficiency indicates the most important profit rate increase at the variant with professional experience of 6 years to 12 years. In this interval the profit rate increase was of 17.3 % from a loss of 2.3 % to a rentability of 15.0 %. This increase is followed as performance level by the 30 to 36 years level where the profit rate difference was of 17.0 %, from a value of 23.0 % to a value of 40.0 %.

The quality of the land fund positively influences the grape production rentability increase making opportune leasing of establishing plantations on higher quality lands.

The profit rate also has an ascending trend together with the increase in land quality, from a negative value which, in fact, shows what is the capital loss of -2.3 % at a 6.3 % rentability. This increases in comparison to the first positive value with 8.6 % (in the 75 – 80 evaluation marks interval).

For the superior quality lands variants, the increase had a more moderate trend with values of 1.9 % in the 85 – 90 evaluation marks interval, 2.0 % for the 90 – 95 evaluation marks interval and 1.6 % for the 95 – 100 evaluation marks interval.

The profit rate was positively influenced by the chemical fertilization level `till the variant on which 600 kg/ha wore administered where this had a value of 11.7 %. After this value, the administration of a supplementary fertilizer dose determined a decrease in the profit rate with 3.6 % and 7.0 % for the variants with 750 kg/ha and, respectively, 900 kg/ha in comparison to the variant fertilized with 600 kg/ha.

Following the utilization of optimization program based on the gross profit maximization objective function it resulted a production structure dominated by the Muscat Ottonel variety with 43.8 % followed by Feteasca Alba with 21.9 %. The lowest share is held by the other varieties category with 5.3 %.

This had an increasing evolution from the variant in which no chemical treatments wore realized and on which, through the gross profit no expenses have been recovered, to the variant in which 8 treatments have been realized and on which a gross profit reported of 21.9 lei to 100 lei expenses has been obtained.

The production structure optimization per varieties of the vineyard having as an objective expenses reduction determined a resizing of plots` surfaces occupied with varieties which require big expenses by reducing these in favor of those which require less expenses.

So, the biggest share in the new structure is held by the Muscat Ottonel variety with 44 % and the lowest share is held by the Feteasca regala variety with approx. 5 %.

On the total surface an increase of the total gross profit of over 1146.4 thousands lei in variant V_1 in comparison to variant V_0 is obtained, having as an objective function the profit maximization due to the share increase of varieties which average gross profit is superior and the reduction of the share of varieties which bring losses. This results has been obtained by realizing a total gross profit of 9828.1 thousands lei in comparison to the unoptimized variant which implied a loss of 33797.6 thousands lei.

The obtained results show that there are ways of increasing the economic efficiency, without efforts which may require supplementary expenses, through the precise knowledge of the varieties` production potential, per ha economic coefficients and the consistency of each variety with certain resources.

Analyzing the expenses value following their minimization, a reduction of – 25 thousands lei in variant V_2 is obtained in comparison to variant V_0, due to the fact that in the plantations` structure varieties which require less expense reported to the other indicators introduced in the economic models (the value of the obtained production, human resources and materials consumption etc.) have been recommended.

Regarding the varieties structure for the two variants V1 and V2, we can state that is optimum that component and varieties structure which ensures obtaining the grapes in the type and quantities that satisfy the demands of the wine department, through the full use of the land, work force and other resources, in high economic efficiency conditions.