ABSTRACT

The importance of agriculture in the national economy results from the economic and social functions. Thus, the agriculture is considered the main source of food for humanity, creating jobs in the upstream and also downstream industries. Also, the agriculture is considered as a big consumer of resources and production factors.

The thesis aims to improve the agricultural structures in the Southern part of Jijia - Bahlui Depression having as starting point the analysis of agrarian structures in Romania and in the European Union (EU).

To achieve the proposed goal it`s necessary to accomplish the following objectives:

- ✓ the agricultural structures analysis in Romania and EU;
- ✓ the analysis of agricultural structural development models;
- ✓ the study of agrarian structures in the investigated area;
- ✓ the analyze the economic efficiency of agricultural production in the investigated area;
- ✓ develop some models to simulate the agricultural structures operation;
- ✓ develop practical recommendations on improving the agricultural structures.

The thesis is structurated on seven chapters and the bibliography.

The first chapter of the doctoral thesis is entitled "The stage of the researches in the structural improvement`s area in agriculture". In this chapter I presented the main types of farms, their characteristics compared with the farms from other E.U. Member States, and in the last section of the first chapter I made several ways for Romanian farm`s recovery. It has examined the dynamics of agrarian structures and their projection on Romanian agriculture as a primordial necessity for its development.

It has analyzed the current state of Romanian agriculture, compared with the E.U. one, presenting the main macroeconomic indicators, the country`s agricultural resources, the evolution of the organizational forms and types of the agriculture, the contribution of this sector

at gross domestic product and gross added value. It has also been examining the potential available in Romania, in terms of land (its structure and evolution on property and exploitation forms), of the totals agricultural food productions, of the agricultural machinery endowment and of other input factors allocation.

Knowing the current structure of Romanian agriculture, it is natural to wonder:

- where the Romanian agriculture it`s going?
- which one is the most appropriate holding for Romanian farmers?
- what kind of agrarian policies should be adopted to turn the Romanian agriculture towards an efficient way?

Considering that no matter which are the economic groups` interests the production structure is ultimately determined by the market, it has also been studied the economical theory based on market laws, such as: the classical theory - the Ricardian model and the neoclassical theory – the Heckscher-Ohlin model: the trade / growth relationship.

Also it is defined the concept of the farm`s structural organization, by making a synthesis of the Romanian and foreign economists` points of view, according to the historical evolutions and their components.

The farm`s structure, as inseparable part of economical structure, has specific characteristics and developments. It is been completing and pointing the interactions between the factors of structural changes in agriculture and the movement of self-regulation.

In the IInd Chapter: ”The purpose, objectives and research method” it has been realized a comparative approach of the classical and contemporary economists` works from country and abroad, of agricultural specialists publications, of the normative acts of Romania and the European Union regarding the integration, the agricultural food market`s performance and regarding the rural development.

The information basis of the thesis consists in statistical data of specialized institutions in Romania and abroad, such as: the National Institute of Statistics, the Ministry of Agriculture Forestry and Rural Development, as well as specialized institutions from Romania (the Institute of Agrarian Economie, the Institute of Agrarian Economie of Romanian Academy) as well as and the European Commission Directorate for Agriculture. In research most frequently are used the following methods groups: systemic, statistics, graphics and dynamic.

The methodology used in this paper work for processing the gathered information, the presentation of results and the resulted conclusions, had methods and processes based on sociological and geo-economic study of the sought territory, such as the agricultural statistics, the economic evidence, the economic experiment, the analysis and linear programming. In the

III[rd] Chapter: "The natural and social-economic conditions of the investigated area" it`s delimited the natural microarea, with its natural, social, economic, administrative and demographic characteristics using the zonal method. This was based on direct field observations, statistical documentation, graphical and especially cartographic representation.

By the realised analysis were obtained some results, consisting in a large number of data, it have been ordered or were graphically expressed. Although, in some cases, it does not provide additional information to the tables, the different types of graphics have the capacity to present in a synthetic, suggestive and attractive way, the essential features of the phenomenon, ensuring as once, a complex picture of the interdependence existing relations.

In Chapter IV it`s studied the determinants of the agricultural development in the South Section of the Jijia-Bahlui Depression, being analyzed the agricultural structures of NE region including the labor force and the endowment with agricultural machinery. The agriculture of the the South Section of the Jijia-Bahlui Depression has an important role throughout the region's economy, with crucial implications on the living standards of population and food security.

The agricultural potential that it has the South Section of the Jijia-Bahlui Depression is remarkable because of the extensive agricultural lands and the very good quality of soils. Although at present it is underexploited, is expected that in the future to become one of the most important agricultural area. The agriculture of the South Section of the Jijia-Bahlui Depression is characterized by a very strong dual structure of the agricultural area exploitation: on the one hand the big mass of individual farms, which own and operate small areas of land, on the other hand, a relatively low number of large farms, but which use almost 40% of the agricultural area. The analyses carried out in various studies have shown that the investigated area cover its domestic consumption of all agricultural products, excepting the sugar beet where the deficiencies are national and they not derive from sugar beet growers attitude, rather from the global agricultural policies.

Most of the production structures which characterize the romanian agriculture, even those which are allined to modernization, remain less mechanized, using the labor force of a large number of families which have a mediocre living. The fertilizers` consumption remains low, the plant protection products remain still ignored. The yields are still lows. The self consumption is extremely practiced, forcing the agriculture to policulturals systems, from where the very diversified picture of the various regions` territories. The development structures, inherited from different historical evolutions, are themselves offsets, giving rise to very different working conditions.

In the V[th] Chapter: "The economic`s efficiency analysis of agrarian structures from the investigated area" there are analyzed many aspects of production and economic outcomes by

type of production the South Section of the Jijia-Bahlui Depression and the Iaşi County, as well as the correlation between the type and size of farms and their profitability.

The mutations occured in the social and economic structure of agrarian structures are not just increases of the territorial dimension, but, in particular, are growths of the concentration`s level of production. The increase of large commercial farms is accompanied by the development of their efficiency in relation with small and medium sized farms. These evolutions are reflected in the medium annual income of a worker in agriculture.

Concerning to the allocated expenditures in the individual holdings, these are quite small because the owner works his land with his family, uses his own seed and the land fertilization is mostly done with the organic fertilizers from their own animals.

The expenses` charges, the taxes and insurance are quite low, which means that the owners dont have means whithin their agricultural holding, preferring rather to rent machines or other agricultural equipments than to buy them. In fact, the farm production`s volume sold during the year, is small to invest in machinery or other fixed assets.

Most of agricultural enterprises with legal personality are specialized in cereals cultivation, which makes the obtained revenues to be relatively low, due to the smaller selling price comparative to their production cost.

During three years, the total and per hectare expenditures have increased for each type of agricultural enterprise existing in the investigated area. The charges`s percent increase of the exploitation activity is a result of the great efforts which are required for the quantitative and qualitative increase of yields per hectare and per animal, this being a normal trend. Therefore, the size effect, especially in crop production, does not always depends just on the realised expenditures amount and composition, but by the time they were made, by the observance of certain rules of agricultural technology, by the degree of the natural factors`s action.

Analyzing the structure of total expenditure can be seen that the share of expenditure is different, both in total operating expenses and also in the natural areas. Descending order of expenditure weights is as follows: costs of agricultural work and services of others, materials, bank interests, energy and water.

A problem in the allocation of production costs is that they take place almost continuously in the range of production time, while their recovery takes place only in the end, after harvesting and delivery of production. Because of discrepancies that exist between work time and production costs, the time of expenditure and that of products obtaining, is essential to obtain the rational combination of plant and animal production, and between agricultural and non-agricultural production. In the base period were clearly pronounced two trends: on the one hand it was increased the rate of gross profit, operating profit rate and economic rate of return,

and on the other hand there was a reduction of financial profitability, which testifies of increase efficiency marketed production, improved use of assets and increase the tax burden.

In Chapter VI "The use and development of models to simulate the operation of agricultural structures under CAP" is address the adjustment of agricultural sector development strategy of researched area to the common agricultural policy, government support measures through the subsidization of agriculture or by law for agricultural credit, ways to improve the structural reform in international integration processes.

In this chapter we examine the impact of payment system of crop rotation on three farms existing in the studied area, establishing many scenarios such as: the support level financial impact on gross margin per hectare, crop structure change according to the financing scheme, impact analysis on the availability of initial payments on net income and over crop rotation agricultural structures, etc.

Optimizing crop structures of the South Section of Depression-Bahlui Jijia have investigated the implementation of the CAP in Romania and in particular financing situation of farmers in the South Department of the Depression-Bahlui Jijia following the implementation of new agricultural policies implemented in 2007-2010. It is described the financing of farmers in Romania and especially in the South Section of Depression-Bahlui Jijia by European Agricultural Fund for Rural Development (EAFRD) and European Agricultural Guarantee Fund (EAGF).

Implementation of post-accession funding mechanisms, the South compartment of Depression-Bahlui Jijia, especially the single area payment scheme (SPS) was quite heavy, actually general situation at the country level, delays occurring in both the processing of applications and field inspections and on payments, with negative implications on the financial capacity of the farm.

The mathematical models presented, reveal that in the joint production branches of a farm, has a special role the criteria after the presented economic phenomenon is modeled.

Simulation results on the effects on food production compatibility of national / local authorities with the EU decision-makers appreciate that they can provide useful information in designing future strategies for industry, I find it much different from some of the current approaches given the strong differentiation which occur between the national and local actors involved - farmers or consumers.

The model optimizes the same time: the farm crop rotation, the investments, loans and the level of made investments. To be considered representative of farms included in the economic and mathematical model, a model is to calibrate the base year (Hazel and Norton ,1986). The model correctly predicted when the optimal solution obtained corresponds to the decision taken by the farmer in the basic year.

Conclusions and proposals are drawn from the study in the last chapter. The obtained results, of the study were exposed in six papers in scientific symposia.

The paper provides a source of information for both professionals from the field and for small farmers who want to modernize agricultural structures and to practice commercial farming to increase economic efficiency.

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