

## FARM STRUCTURE, TYPE OF AGRICULTURE IN TIMIS COUNTY

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**Abstract:** *Agricultural systems are functional units specific to the natural and socio-economic framework, created for the production of vegetal and animal production, directed and controlled by the farmer, based on solid economic, ecological and technological fundamentals applied under different climatic and soil conditions, high quality, and economically efficient production. Following the same authors, the main agricultural systems are: traditional (family) agriculture, intensive farming, sustainable agriculture, integrated agriculture, organic agriculture. Choosing a type of technology helps farmers to minimize the risk of damage by constant production and, on the other hand, reducing production costs. The general objective of conventional technology and technology is to ensure a high and constant crop yield per year on a land surface with a given labor and financial consumption. The productivity of a technology is given by the quantity of products obtained and by the labor consumption at the surface unit. Agricultural technology also includes a social, cultural and psychological component, which is based on understanding, knowledge, receptivity from those who apply its methods . For example, landlessness has created real structural imbalances in agriculture, but also a social crisis. The employed population in agriculture has become older and less receptive to association in economically viable farms and the adoption of new technologies. Tradition, habits, and overall attitudes to change are important factors that affect the use of performing technologies. The role of technology is to improve the relationship of consumption to ultimately produce as high and highest production at a unit cost as low as possible. Technology is the study of methods and processes used in various sectors of agriculture, such as: field crop technology, horticultural technology, livestock technology. Technology is materialized on agricultural land by the technological flow, which represents the totality of methods and works in their natural order and sequence, starting from the preparation of the land for sowing to the harvesting of products and the removal of vegetal remains.*

**Key words:** *agricultural systems, technology, structure*

### INTRODUCTION

Agriculture evolves in a context characterized by the development trend and the successful application of the latest knowledge and technologies in order to solve an essential problem of the development of society, which refers to the supply of food in accordance with the growth rate of the population and at acceptable prices. The increasing demand for food determines the necessity for us in the country to use modern agricultural production technologies, able to properly exploit the natural potential, leading to the production of food in order to meet the ever increasing needs both of quantity and quality of population, as well as the creation of export availability.

Modern and performing farming can not be done without specialists, without a strong R & D sector, with no specific technologies for each crop group and for each area, permanently adapted to climate change and in accordance with the requirements to protect the environment.

The reality is that one technology or agricultural practice can not provide enough food for the whole world. Instead, we must promote the use of as many of these technologies as possible to increase the yield of agriculture.

If we also take into account the growth of the global population - which could reach over 9 billion people by 2050, while we will see a reduction in natural resources, we have to raise a big question of ensuring food security global.

In this context, the role of new agricultural technologies and practices is all the more important in order to increase yields on agricultural crops.

### MATERIAL AND METHOD

In the study area, the structural changes that took place in Romania's agriculture during the period 1990-2003, resulted in the transfer of more than 96% of the agricultural lands into the private property, leading to the formation of small and medium-sized farms.

### RESULTS AND DISCUSSIONS

The main form of agricultural holding in the reference area is the small peasant farm (12394 farms, representing 56.7% of the total farms), Analyzing as a percentage of the arable land, according to APIA data in 2014, most areas are classified as medium and large holdings.

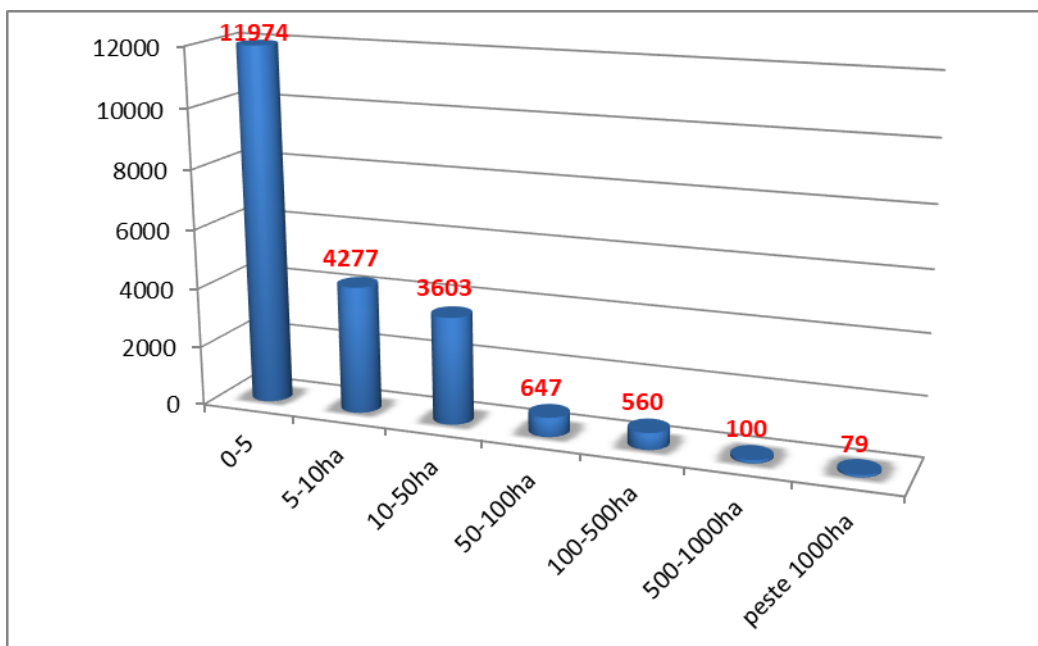


Figure 1. Classification of farms by cultivated area

#### Business management level of the farm

Main issues at farm business management level:

- agriculture is not a professional occupation for a segment of the analyzed farms, being for many farms only a complementary activity or part-time generation of income.

- *operational costs and means of production are not systematically recorded. Farmers can not optimize their production based on the alternative input use calculation.*
- *agricultural advice is not really close to farmers.*

### **Proposals to improve the cereal production systems in the region**

To optimize average yields / ha and their quality, general measures and recommendations for troubleshooting:

- *improving the management system of the agricultural business;*
- *reducing the costs of the shots;*
- *fertilization should be made in accordance with the plant's needs and requirements, in accordance with plant protection and pest control provisions;*
- *selecting varieties better suited to drought tolerance and product quality;*
- *observance of the optimal period and sowing operations;*
- *diversification of crops with emphasis on the inclusion of alternative crops.*

### **The predominant way of organizing the crop market**

Analyzing data on marketing of production in large and medium-sized farms surveyed, it is noted that producers sell their production preponderantly after harvesting, although this only provides them with a low sale price.

For various reasons, producers in the region do not resort to annual production storage and marketing at higher prices in the following year / years.

From the study conducted, most producers (both large and medium-sized) are focusing on their marketing policy towards circumstantial situations for the following reasons:

- *the lack of an organized cereal market and a guaranteed minimum price;*
- *lack of storage space for the production, which would allow producers not to sell production immediately after harvest when the price is the lowest;*
- *the lack of forms of association, which would allow the negotiation of the price for large quantities;*
- *lack of financial resources to support and resume production activity, which determines the sale of the harvest immediately after obtaining;*
- *the quality of production fluctuating from year to year as the same technology is not applied (poor fertilization, not always good quality seed, lack of phytosanitary treatments and, last but not least, climatic conditions);*
- *relatively small production / ha produced at farm level, so that the respective producers can not play an important role in a poorly organized market;*
- *the lack of accurate information about the production made in an area and the destination of this production.*

### **CONCLUSIONS**

The main conclusions from this paper bring an additional originality from the point of view of the study of the optimization of the plant production technologies in Banat and represent a viable source of information for grain growers (wheat, barley / barley, maize) , legumes for beans, oil plants, who want to obtain high and high quality produce. Several specialists from different areas have analyzed factors that drive low production, proposing remedial measures and remedies, in line with new technologies and environmental standards: plant production / technologies, pedology, agri-environment, marketing, agrarian economy and marketing.

The main factors affecting productivity: inappropriate application of scientific procedures and

technologies and the recording of deficiencies in production management. The use of inefficient means of production, machinery and equipment contributes to increased cost of operations.

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