

ABSTRACT

The consumption needs for agricultural and agro alimentary product evolves with economic and social development.

Ensure optimal standards of food consumption is a particularly difficult problem due to various factors influence, like the diversity and mobility of consumption needs and the great variety of possibilities for meeting them.

To compete on foreign markets with competitive offers, Romanian agro alimentary companies must develop new elements of competitiveness (trade, marketing innovation, contribution of services, adapting to the single market, significant investment efforts, etc.) and to adapt to quality standards in production and marketing.

The lack of competition from cereal sector has as result the reorientation of farmers to other economic activity and labor migration from rural to urban medium.

The proposed research from thesis addresses several ways to revitalize and improve the performance in the cereals sector by implementing development strategies of the sector in Iasi county, to ensure local consumption needs and availability for the domestic market.

The research objectives were:

- ∅ carrying out the research on aspects that characterize grain cereals sector in the EU integration perspective;
- ∅ analysis of climatic and socio – economic conditions of Iasi county;
- ∅ zonality research on cereal culture and territorial distribution of grains in Iasi county;
- ∅ analysis the production results of cereal grain in Iași county in 2001-2008 period;
- ∅ research the consumer needs, consumer demand and consumption of cereal grains in Iasi county;

- ∅ the cereal structure optimization in Iasi county;
- ∅ development market strategies and distribution of cereal grain in Iasi County, according to farm size;
- ∅ identify strategies to supply wheat to the Iași city population, according to its destination, to reduce wheat costs of transport and storage.

Research methodology used in the thesis included the following aspects:

- ∅ gather the information to compose the technical and economic-financial database;
- ∅ processing the information;
- ∅ data analysis and interpretation (results);
- ∅ formulation the conclusions and recommendations.

In the first part of the thesis, it was realized a synthesis of researches on issues that characterize the insurance of Romanian consumption needs to grain cereal and export availabilities in view of EU integration.

Most countries have developed graphical representations of food recommendations to illustrate the proportion of different foods with similar characteristics to be included in a balanced diet.

The graphics fall foods into two groups: foods of plant origin (cereals, which provide fiber to the organism and are an energy source without fats, fruits and vegetables are important for vitamin C and other micronutrients) and animal foods (meat fish, eggs, milk).

Joint recommendations involve eating more fruits, vegetables and complex carbohydrates and choose foods that are lower in saturated fat, salt and sugar. The use of food groups, like the food pyramid, ensure inclusion of all basic food products and deliver positive messages about what you should eat, and some qualifying information to avoid eating too much of certain foods.

The supply of cereal grains is dispersed and irregular quantitatively.

The volume of production depends on the technical part, and secondly, on the climate and biological conditions which are random, printing these commodity markets in agriculture, a very mobile character. The quantity of a product offer on the sales market depends, first of all on the benefit that it will be realized by the entrepreneur.

The consumption level and structure depends on the overall framework of macroeconomic policies that affect food consumption behavior of people, such as income policy, monetary policy, social policies etc.

Factors outside of economic, food consumption of the population depends on: demographic variables (educational level, age structure population and degree of aging, the employment rate of the population, etc.), social variables (degree of urbanization, infrastructure of rural area, occupational diversification, access to information, etc.), other variables (geographical location, religion, dietary habits, psychological factors related to individual tastes and preferences).

Wheat is a basic product in human food consumption, especially in Romania, where the consumption of cereals and cereal products is higher than the European average. For example, in 2007, the consumption of cereals in Romania was of 206.9 kg per capita, compared to 117.4 kg per capita in the European Union.

The functioning of the national cereals market and processed cereal products is regulated primarily by the GEO no. 12/2006 for the establishment of regulatory measures on the cereal market and processed cereals products, approved with amendments by Law no. 225/2006.

The market information system on cereals sector is organized under the law by the Ministry of Agriculture and Rural Development, in collaboration with the grain and processed products council.

Grain processing is done in compliance with requirements for protecting public health and consumer interests in relation to food and feed for animals.

The market prices of cereals are freely determined by negotiation between partners on the sector.

When market conditions require, the Ministry of Agriculture and Rural Development by the Agency for Payments and Intervention for Agriculture, applies the mechanism for the grain market intervention under the law.

After record production of over 680 million tonnes in 2008/09, global wheat production will decrease 10 (FAPRI) to 20 (OECD - Organization for Economic Co-Operation and Development – France, FAO - Food and Agriculture Organization of the United Nation) million tonnes in 2009/10, these productions while remain on second place of the biggest productions ever made.

The area cultivated with wheat, globally will increase by 1.2 million hectares in 2009/10 to reach 225.2 million hectares. For the future, the area cultivated with wheat will stabilize approximately to 223 million hectares.

World wheat production is forecast to grow to over 715 million tonnes in 2018/19, according to FAPRI.

FAPRI (Food and Agricultural Policy Research Institut - USA) predicts that wheat consumption will increase by 0.9% annually, reaching 714 million tonnes in 2018/19, as global demand on foods increases, and more, some wheat will be used for ethanol production.

After a record growth in 2007/08 to over 160 million hectares, the area cultivated with maize worldwide fell by 2% in 2008/09 (mainly in the U.S.), but because of better yields, production was unchanged at 791 million tonnes. According to FAPRI, increasing efficiency, together with increases in area cultivated in the U.S. and China should raise corn production at 900 million tonnes by 2019.

In the EU, in 2008 grain harvest reached around 312 million tons, compared with 258 million tonnes in 2007/2008 due to the significant increase in area cultivated and produced higher yields due to favorable natural conditions.

EU cereal production is forecast to decline slightly in the next few years before increasing on the medium term and reach above approx. 300 million tonnes by 2015. Domestic consumption of cereals is also forecast to maintain the growth medium, determined mainly by the rapid growth of the use of bioethanol, which is expected to double over the next six years and reaching 20 million tonnes by 2015.

In Romania, the area cultivated with cereals decreased during 2001-2008, in average with approx. 20%. Highest yields occurred in years with favorable weather conditions (2001, 2004, 2005 and 2009). Romania gets around. 2.7% of total EU wheat, 2.2% of total production of barley and 13.3% of the total production of maize.

In developed countries, agricultural products and food distribution is done through specific channels. This system covers the national territory, products being transported in search of a profitable market.

In Romania grain capitalization is made by SC COMCEREAL SA, National Agricultural Products R A., and other economic agents, immediately after harvest or after a prior conservation.

In the channel of distribution and trading of cereals grains are interposed several stages, namely: reception, storage and conditioning, partitioning the destinations (food consumption, feed, industrial processing, export, etc.), preparing for delivery and actual delivery.

Consumers attach higher value on agricultural and agro alimentary products quality, so their price is not a determinant factor of consumer choice.

Common principle, on which the quality of any policy is base on, is the prevention of manufacturing error. Replacing the identify failures with a prevention strategy must begin with raw materials to continue with the precession of the manufacture, marketing and completes with the feed - back in consumer products.

The second part of doctoral thesis entitled *“Results and their interpretation”* includes the following:

⌘ **the study of natural and social economic conditions of the investigated area**

In this chapter are presented: the zoning and territorial distribution of cereal grain crop in the county of Iasi, analyze the relationship between zoning and territorial distribution of Iasi county on microzone, the analysis of natural conditions with respect to air temperature, frost, relative humidity, cloudiness and duration of sunshine, rainfall, hydrological and hydrographic network, the main soil types, population and workforce.

⌘ **the study of major economic indicators on the evolution of cereal grain cultivation in the county of Iasi, in the period 2001-2008**

In chapter 4, were examined the key indicators of which include: the land structure on use categories and property form, the structure of arable land by crop group and property, the structure of area cultivated with cereal grain on species and forms of property, the developments of average production per hectare and total production for the main species of cereal grains, the destination of cereal grains, the economic performance (the production cost and selling price, total revenue per hectare, gross margin, profit and rate of return, the break-even point).

⌘ **strategies for increasing the production of cereal grains in Iasi county, to ensure local consumption needs and availability for domestic market**

In the first part of chapter 5 are presented theoretical aspects of consumer needs and demand for cereal grains.

Consumer research needs and consumer demand was realized using the direct method,

based on a statistical survey's questionnaire.

The sample included 137 subjects, of which 120 were validated. The questionnaire had 11 questions, plus five questions of identification.

The cereal products included in the study were: wheat flour, corn flour, rice, white bread, black bread, bread, pasta and other grain products.

The questions included in the questionnaire, for the research of consumer needs and consumer demand were related to the amount of grain products consumed monthly by a person, frequency of consumption, the place where is purchased most the cereal products, own consumption, criteria which are considered in deciding to purchase and minimum and maximum prices that consumers are willing to pay to purchase cereals products.

To optimize the structure of cereal grains in the microzone Tg. Frumos, was chosen as work method the technical and economic modeling system based on linear programming.

The model unknowns are represented by grains: wheat, barley, oats and maize.

Restrictions considered are:

- ∅ total area cultivated with cereals;
- ∅ minimum area occupied by cereals;
- ∅ average yield obtained;
- ∅ labor force.

The optimization criteria, follows the objectives:

- ∅ profit maximization;
- ∅ minimizing the costs.

In Iasi county can not be developed market and distribution strategy of cereal grains, but specific strategies based on farm size (owned land area), which has the role to develop the production of cereal grains in Iasi County.

To achieve the most effective strategies for wheat supply of Iași city population, it was set the annual requirement of wheat for supply, according to population number (stabil, floating and in transit), area cultivated with wheat on the arable land of the city and average annual consumption of wheat per person (the equivalent flour).

Also, it was analyzed the capacity of storage and wheat processing units from Iasi.

Depending on the destination of wheat (consumption - flour, consumption - products resulting from processing, the feed and seed) had been developed several types of supply

variants that can be used by processors and consumers of wheat from Iasi city.

By applying the research results is expected to substantially improve the economic and financial performance of agricultural units that adopt them, because of:

- ∅ provided information on: consumer needs, consumer demand and consumption in Iasi county on the main species of cereal grains, cereals market and distribution in the EU perspective, the existing legislative framework in the cereals sector;

- ∅ possibility of high revaluation the existing agricultural potential (the cultivation of cereal only in areas with medium or high potential);

- ∅ ability to obtain additional income as a result of optimizing the structure of cereals proposed in the thesis;

- ∅ developing the production of cereal grains as a result of implementation the specific strategies for market and distribution according to farm size,

- ∅ reducing costs of transport and storage of grain in respect to the proposed optimal supply variations depending on the destination of wheat.