THE ROLE OF WHEAT IN ENSURING FOOD SECURITY

ROLUL GRÂULUI ÎN ASIGURAREA SECURITĂȚII ALIMENTARE

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Abstract: *Wheat has a very important place in the strategy to ensure food security, primarily due to high nutritional value, the long term preservation capacity, but also due to specific characteristics and suitability to achieve a wide variety of bakery products. Our country has created and creates a favorable framework for cultivation of this so important cereal, climatic conditions representing the basis for achieving a satisfactory production, sometimes exceeding the expected production.*

Key words*: wheat, food security, economic agents, alimentation*

INTRODUCTION

Wheat is the main raw material used in the manufacture of bakery products, representing the most important culture inside of vegetal production and an important component of the grain market.

We emphasize that our country has had favorable climatic conditions to provide all products needed for a rational alimentation of the entire population, for animal feed, industrial raw materials, export availabilities, in achieving of all these features an extremely important role is held by cereals whose primary economic importance is related to the role they occupy in the Romanian food consumption model. Wheat is the most important cereal and the plant that occupies the largest areas in the world. There is no food that satisfies human requirements so economical in nutritional and active principles as wheat bread. He enjoys special attention due to high wheat berries content in carbohydrates and protein substances and the ratio between these substances.

There are multiple possibilities to mechanize culture, which determines achieving profitable productions. This agricultural product can

be stored for a long time or transported at long distances without spoiling. It can grow in most different climatic conditions ensuring satisfactory production.

MATERIALS AND METHODS

For most of the world's population, bread and various products (spaghetti, vermicelli, macaroni, noodles etc) which are made from wheat flour represent the basic food, providing about 40 % of the total necessary calories. Also wheat is the raw material for different industries and an important source of trade. It is used in the manufacturing of starch, glucose, dextrin, alcohol and other products. Bran, as a byproduct from milling, represent a concentrated nutriment and feed wheat is frequently used in the production of compound feed (Alexandri, C., 2001).

Wheat spin-off, chaff and straw are used in animal feed, respectively as bedding and lately, by advanced technologies in cellulose and paper.

Wheat is grown in over 45 countries, feeding 35-40 % of world population. Wheat areal in the world is closely related to the nature of soil, the most favorable being the area with high content of humus chernozem, and less favorable being podzol soils with acid and saline reactions in organic matter.

Demographic factors affect in a determinant manner wheat crop expansion especially in developing countries. Population increase in these countries imposed the introduction and expansion of culture in countries referred to.

Wheat was and remains the main crop that ensures food security of the population. Many developing countries, which in the past didn't cultivate wheat or cultivated on limited areas, now dispose of large areas cultivated with wheat, due to simple production technology and its low cost. This trend reveals emphasis of intensification level of wheat culture production on a global scale (Swinnen, J., 2008).

RESULTS AND DISCUTIONS

Wheat has a very important place in the strategy to ensure food security, primarily due to high nutritional value, the long term preservation capacity, but also due to specific characteristics and suitability to achieve a wide variety of bakery products. Our country has created and creates a favorable framework for cultivation of this so important cereal, climatic

conditions representing the basis for achieving a satisfactory production, sometimes exceeding the expected production (Zahiu, L. 2005).

The role of wheat in food security strategy is determined by low-cost conservation possibilities compared to other food products, without being required refrigeration chains or expensive equipment.

It is to be noted the importance in this context of qualitative criteria, wheat flour quality being given by its gluten content, percentage which must be over 30%. Protein content of wheat is dependent on several factors, most important being: the nitrogen amount in the soil, temperature at the time of vegetation, soil moisture, wheat variety that was chosen, phosphorus and potassium balance in wheat culture technology.

Due to different vegetation conditions, at some varieties can be found a higher protein content compared to others.

Under these conditions if the wheat supply for bread is subject to fluctuations caused by agro-pedo-climatic factors with a certain variability, the demand for bread manufacture wheat displays a reliable growth trend. Another remark concerns the appropriate quality, suitable to autochthon climatic conditions and to Romanian varieties of wheat.

In our country's climatic conditions, the yield level and economic efficiency depends on the restoration and bringing into service of irrigation systems and crop rotations introduction and compliance.

Cereals, recognized as part of the Gramineae breed, occupy an important place in human nutrition, being characterized by a chemical composition rich in nutrients, easily assimilated in the body. As the main components of the grain are:

- partially complete proteins in form of albumin, globulin, protamine (gliadin in gluten),glutelina with an essential role in the process of fermentation of the dough.
- glucides represented by starch, cellulose, maltose(especially in shell).
- fats, are found in wheat embryo and shell, which are very rich in vitamin E.

In outer layers and in embryo are also found vitamins of group B. In addition, the wheat berry contains a number of minerals in the form of phosphorus, potassium, calcium, magnesium. After processing of cereal grains as croups and flour, some existing components in the outer layers and

in embryo are largely lost, leaving mainly carbohydrates in the form of starch and protein, partially complete.

CONCLUSIONS

As per capita wheat consumption is double to the EU, due to national consumer model, especially people who have a low income and cannot provide a qualitatively normal structure of the daily ration. Yields are low and there is an instability of the annual production of wheat needed for domestic consumption.

The degree of annual supply limits ranged from 59.7% (in 1996) and 147.2% (in 2001). Annual changes in stocks of wheat and rye are between -3.467 million tons (1996) and + 2.537 million tons (2001).

The wheat imports reach significant levels in years with poor harvests, because they depend on climatic conditions. The policy support wheat producers had the expected effects, and the export is below our country's potential.

The revenues of wheat producers are unsatisfactory due to the excessive parceling of land, low yields per hectare, higher costs due to expensive inputs, major deficiencies in the distribution and storage system, poor quality of wheat produced by economic agents.

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