### 6th INTERNATIONAL MULTIDISCIPLINARY CONFERENCE

# THE FUNCTION OF THE FRUIT–GROWING AND –PROCESSING IN THE COUNTY OF SZABOLCS-SZATMÁR-BEREG

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SUMMARY: Hungary has great agro-ecological suitabilities for the fruit-growing and the fruits has prominent function in the nutrition. The fuits are eated raw or as protected products in the whole year. In the county of Szabolcs-Szatmár-Bereg the fruit-growing has prominent function, because Hungary's mare than 60% of fruit production comes from the county. The apple takes the first place, which followed by the stone-fruits. Novadays the main aim of the fruit growing to decrease the friut fluctuation and to improve the quality, in front of increasing the yields.

Key words: fruit-growing, fruit-processing, fruit yields, market.

## **1. INTRODUCTION**

The agriculture play a significant role in the county of Szabolcs-Szatmár-Bereg. In the very important fruit-growing the apple growing takes the first place, which followed by the plum and sour cherry growing. Peolple couldn't eat the fruits long time in fresh condition, therefore we have to process them and after processing the fruits ready-to-serve in the whole year. The fruit-growing give good possibilities for utilizing the Szabolcs-Szatmár-Bereg county's unfertile soils. The producted fruit's marketing greatly impress the food industry, the wood industry, the market, which further increase its importance. It has serious function in the employment. 70 percent of Hungary's apple production comes from three county (Szabolcs-Szatmár-Bereg, Hajdú-Bihar and Borsod-Abaúj-Zemplén). The fruit-growing gives great value the agriculture in this location, which value takes inadmissible its loss.

In the paper I present the yield data of the main fruit species (apple, plum and sour cherry) in Hungary and in the county of Szabolcs-Szatmár-Bereg in the in the year of 2002. The data comes from the National and the Regional statistical database.

## 2. LITERARY SURVEY

According to Papp J. (2003) Hungary has good agro-ecological conditions, which based under the Kárpát-basin's protection. Under these conditions farmers could product valuable and juicy fruits. The fruit-growing takes stressed pace with increasing the employment in the disadvantageous rural areas.

According to Gyúró F. (1990) opinion, in the healthy nutrition 100-130 g/day/person the minimal fruit mass. This minimal fruit consumption takes 50 kilogramms per inhabitant in one year. From the chemical composition of the fruits the acid, protein, carbonhydrate, fibre, pectin, vitamins, minerals, the macro- and micro-elements are prominent.

As Soltész M. (1997) wrote, in Hungary the apple is the most important fruit. In Hungary the apple almost grow everywhere, because of its great ecological flexibility. The more intensive plantations cause the decreasing of the profitable soils. It is necessary to mark the most favourable micro-areas also in the traditional fruit-growing regions.

According to Soltész M. (1997) the sour-cherry belongs to our most important fruits from the begining. Hungary's habitat conditions place the sour-cherry the profitable produced fruits, because it's an adaptable, drought resistant plant.

The fruit-growing has great great expectation for workforce and tools (Hajós L.; 1993). The fruit plantation, as an investment about 10-30 years, which imply the plantation. Also imply the supplementary investmet (building, storehouse, loft, machine stock) and it suppose as a background, the disposable infrastructure. The fruit setting expected between the 3rd to 6th years, the refounding begins after that. Most of the fruit species are productable anywhere in Hungary as hobby or self-sufficiency. Farmers have to select the field cautiously if they want to product for market.

## 2.1. Processing

According to Cselőtei L. (1993) important development followed in the fruit-growing paralell to the fruit processing. Beside the consumer's claim to the quality the distribution of the yield needed the processing of the product. During this process always have to take care for the best quality of the row materials for the processing.

About 30-50% of the fruit yield come to industrial processing, 10-15% of it comes to export and the rest comes to fresh consumption (Papp J.; 2003).

According to the wiew of Hajdu I.-né-Lakner Z. (1999) great part of the agricultural products inceasingly comes to the consumer's table as processed product.

In Hungary the apple is the largest quantity row material for the food-industry from the fruits. In the food-industry the most important is the apple juice production, after it comes the concentrate production (Szabó Z.; 1996).

In small amounts from the apple comes to mash, wine, juice row material. Great part of the apple comes to export as concentrate.

In the future in Hungary the concentrate producers could process about 500000 tonns of apple (Internet 1, 2003).

According to Herpay B. (1988) the kernel fruits important row materials of the food processing industry.

The sour-cherry serious and popular fruit, because it is many-sid processed and well exported in most of the years. Its large-scale planting started after the using of the vibrational harvesters in the 1970's. In this manner the sour-cherry takes the third place in the hungarian fruit-production.

Food processing of the plum comes from the long past. In harmony with the expectations first of all single and mixed plum in syrup comes from it, in smaller scale shared product comes from it. The apricot has large harvest fluctuation and the available row material unstable. Food-industrial processing of the peach is important. The various maturing varieties makes possible the countinous processing of it between the middle of July, to 20th of September. From the kernel fruits the plum and the sour-cherry well harvested species with vibrational harvesters.

# 3. STUDYING THE DATA OF THE CULTIVABLE AREAS AND THE YIELDS

As the *Table 1* shows 5.3% was the proportion of the orchards from the agricultural area in the county of Szabolcs-Szatmár-Bereg in 1990. In the year of 2003 it increased shortly, it came to 6.6%, which proportion doesn't changed in the next years. This increasing interpreted with the new and intensive plantations, which were supported by the government with subsidies.

| Denomination      | 1980  | 1990  | 2000  | 2001  | 2002  |
|-------------------|-------|-------|-------|-------|-------|
| Arable land       | 321,1 | 308,4 | 283,9 | 286,8 | 286,8 |
| Garden            | 27,3  | 33    | 8,7   | 6,3   | 6,3   |
| Orchard           | 35,6  | 23,9  | 25,9  | 32,7  | 32,7  |
| Vineyard          | 6,02  | 2,89  | 1,78  | 0,89  | 0,89  |
| Grassland         | 78,9  | 79,3  | 66,4  | 66,4  | 66,4  |
| Agricultural area | 468,9 | 447,5 | 386,6 | 393   | 393   |
| Forest            | 96,9  | 111,2 | 113,9 | 113,9 | 113,9 |
| Reed              | 1,3   | 2,4   | 3,6   | 3,6   | 3,6   |
| Fish-pond         | 0,65  | 0,57  | 0,55  | 0,55  | 0,55  |
| Productive land   | 567,7 | 561,6 | 504,6 | 511   | 511   |
| Uncultivated area | 60    | 65,8  | 118,7 | 112,3 | 112,3 |
| Total area        | 627,6 | 627,4 | 623,3 | 623,3 | 623,3 |

Table 1. Land use in the county of Szabolcs-Szatmár-Bereg (1000 hectare)

Source: Szabolcs-Szatmár-Bereg Megyei Statisztikai Évkönyv 2002

| Denomination                                  | Hungary | County of Szabolcs-<br>Szatmár-Bereg | Division in percentage |
|---|---------|--------------------------------------|------------------------|
| Apple   | 527 000 | 385 480                              | 73                     |
| Sour-cherry                                   | 38 000  | 15 207                               | 40                     |
| Plum  | 49 000  | 13 275                               | 27                     |
| Harvested total production of the main fruits | 614 000 | 413 962                              | 67                     |

 Table 2. The production of the main fruits in Hungary and in the county of Szabolcs 

 Szatmár-Bereg in 2002 (ton)

Source: Szabolcs-Szatmár-Bereg Megyei Statisztikai Évkönyv 2002

73% of the apple, 40% of the sour-cherry and more than quarter of the plum yield of Hungary comes from the county of Szabolcs-Szatmár-Bereg (see in *Table 2*). These rates supports the stressed importance of the fruit-growing in this county.

In Hungary in 2002 the harvested fruit yield was 699246 tonns, in the investigated county it was 419019 tonns in the same year. These yields shows that 60% of the Hungary's fruit production comes from and located to the county Szabolcs-Szatmár-Bereg.

The profitability of the fruit-growing is basicly determined by the cost of production, the average yield and by the supply and demand on the market. The quickly perishable fruit- and vegetable products strangely sensitible for the market's fluctuation. Not matter what cheep low costs, great mass of fruit produced for the food processing industry, or well qualified, well-timed and marketable friut producted with higher costs for the fresh market. Two conected process described the fruit production in the last few years. On the one hand, first of all economic and financial problems strong stepping back was found in the agrotechnical level; on the other hand mostly among the professionaly well prepared farmers, the exploration and mobilization of the existing productional methods. This dual process impressed the yields, these yields just moderatly decreased. The negative forces first of all appearanced in the well changed yield reliability and yield quality.

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