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THE POPULARITY OF MILK AND DAIRY PRODUCTS WITH FAMILIES OF
CHILDREN ATTENDING THE PRIMARY SCHOOL IN LETOVICE
(CZECH REPUBLIC)

POPULARNOŚĆ MLEKA ORAZ PRODUKTÓW MLECZNYCH WŚRÓD RODZIN,
KTÓRYCH DZIECI UCZĘSZCZAJĄ DO SZKÓŁ PODSTAWOWYCH W LETOVIČÍCH
(REPUBLIKA CZESKA)

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103 parents of 9 to 11 year old children was completed the questionnaires about preferences of milk and dairy products with their children. In the paper was observed the frequency of buying milk and yoghurt according to the number of family members. The most of them were the four-member families. In accordance with percentage share of families who buy milk and dairy products most frequently are the four-member families: most families buy milk daily; dairy products are mostly bought several times a week. Most families would be interested in providing their children with milk in the school.

Key words: children, primary school, milk, dairy products, preferences

Słowa kluczowe: dzieci, szkoła podstawowa, mleko, produkty mleczne, preferencje

INTRODUCTION

The Czech Republic occupies 2.0% of European Union area and amounts for 2.2 % of EU population. These indicators classify the Czech Republic as a mid-sized EU member state. Among the 25 EU member states, it is no. 12 according to area and no. 11 according to

population. Moreover, the CR belongs to average according to the amount of agricultural and arable land (no. 10 and 7 respectively). Also, the CR belongs to average states according to milk production (see chart I).

Table I Milk production in EU member states
Wielkość produkcji mleka w krajach UE

| State | No. of dairy cattle [pieces] | Milk yield [l of milk/cow/year] | | Milk quality | |
|----------------|------------------------------|---------------------------------|-----------|--------------|---------|
| | | Year 1999 | Year 2004 | Proteins [%] | Fat [%] |
| | | | | | |
| Germany | 4 287 000 | 5 909 | 6 585 | 3,43 | 4,22 |
| France | 3 947 000 | 5 612 | 5 948 | 3,23 | 4,07 |
| Poland | 2 730 000 | 3 466 | 4 071 | 3,22 | 4,00 |
| Great Britain | 2 153 000 | 6 112 | 6 665 | 3,26 | 3,99 |
| Italy | 1 838 000 | 5 150 | 5 735 | 3,30 | 3,74 |
| Netherlands | 1 502 000 | 7 034 | 7 415 | 3,49 | 4,45 |
| Ireland | 1 122 000 | 4 119 | 4 759 | 3,30 | 3,81 |
| Spain | 1 056 000 | 4 934 | 5 640 | 3,16 | 3,75 |
| Belgium | 571 000 | 5 260 | 6 166 | 3,35 | 4,14 |
| Denmark | 569 000 | 6 942 | 8 000 | 3,43 | 4,30 |
| Austria | 538 000 | 5 064 | 5 632 | 3,40 | 4,20 |
| Lithuania | 434 000 | 3 228 | 4 238 | 3,27 | 4,15 |
| Czech Republic | 429 000 | 5 173 | 6 200 | 3,41 | 4,00 |
| Sweden | 401 000 | 7 473 | 8 107 | 3,38 | 4,25 |
| Portugal | 338 000 | 5 730 | 6 452 | 3,29 | 3,86 |
| Finland | 318 000 | 6 567 | 7 600 | 3,41 | 4,23 |
| Hungary | 304 000 | 5 562 | 6 300 | 3,24 | 3,74 |
| Slovakia | 202 000 | 4 224 | 5 236 | 3,29 | 3,77 |
| Latvia | 186 000 | 3 754 | 4 110 | 3,29 | 4,17 |
| Greece | 150 000 | 4 755 | 4 539 | 3,03 | 3,64 |
| Slovenia | 134 000 | 3 867 | 4 560 | 3,36 | 4,17 |
| Estonia | 115 000 | 4 171 | 5 528 | 3,34 | 4,13 |
| Luxemburg | 41 000 | 5 864 | 6 677 | 3,39 | 4,20 |
| Cyprus | 26 000 | 5 540 | 5 682 | 3,36 | 3,60 |
| Malta | 8 000 | 4 868 | 5 520 | 3,18 | 2,81 |

Source: ZMP Bonn, BMELV Berlin, EK etc. (in: *KVAPILÍK* et al., 2006; *KVAPILÍK* et al. 2007)

Financially aided by the Community, campaigns (aimed at increasing the consumption of milk and dairy products) are carried out in EU member states in the form of various seminars, courses and conferences emphasising the importance of milk consumption for human health; furthermore, besides other activities, the improvement of marketing strategies is discussed and informative programmes are disseminated.

Consumption of milk products in the EU: Some broad trends among the dairy products are apparent – butter consumption in the EU has been declining, slowly but steadily, for

many years. On the other hand, cheese consumption has been on a rising curve, a trend that is expected to continue. Between 1995 and 2004 cheese production increased by nearly 15 %, with per capita consumption growing at an average rate of 1.5 % per year. Nearly 40 % of EU mil is consumed as cheese. Four Member State (Germany, France, Italy and the Netherlands) produce more than 75 % of EU cheese [3].

The significance of milk in child nutrition is worldwide appreciated. “The School Milk Day” in September is reminded in more than 80 countries of the world. This means that millions of children during their school attendance are given milk at school. This action is supported by whole society in those countries [4]. In EU member states, the promotion of milk consumption in schools is subsidised according to school type (primary, secondary, boarding school). Subsidies are limited to 0.25 l of half-fat milk or milk produced as yoghurt (per day and student). Milk distribution is carried out by dairies, schools or professional companies [5]. In the Czech Republic, Laktea o.p.s. is the organisation put in charge of organisation and administration of the programme. Laktea is a non-profit organisation with the aim of support-

Table II The consumption of milk, cheeses and butter in various countries
Spożycie mleka, sera oraz masła w wybranych krajach

| Country | Dairy Products | | |
|-------------------------------|--------------------------------------|----------------------------|---------------------------|
| | Liquid Milk Drinks [l/person/day] | Cheeses [kg/person/day] | Butter [kg/person/day] |
| Finland | 183.9 | 19.1 | 5.3 |
| Sweden | 145.5 | 18.5 | 1.0 |
| Ireland | 129.8 | 10.5 | 2.9 |
| Netherlands | 122.9 | 20.4 | 3.3 |
| Norway | 116.7 | 16.0 | 4.3 |
| Spain | 119.1 | 9.6 | 1.0 |
| Switzerland | 112.5 | 22.2 | 5.6 |
| United Kingdom | 111.2 | 12.2 | 3.7 |
| Australia | 106.3 | 11.7 | 3.7 |
| Canada | 94.7 | 12.2 | 3.3 |
| European Union (25 countries) | 92.6 | 18.4 | 4.2 |
| Germany | 92.3 | 22.4 | 6.4 |
| France | 92.2 | 23.9 | 7.3 |
| Czech republic* | 92.0 | 12.0 | 4.0 |
| New Zealand | 90.0 | 7.1 | 6.3 |
| United States | 83.9 | 16.0 | 2.1 |
| Austria | 80.2 | 18.8 | 4.3 |
| Greece | 69.0 | 28.9 | 0.7 |
| Argentina | 65.8 | 10.7 | 0.7 |
| Italy | 57.3 | 23.7 | 2.8 |
| Mexico | 40.7 | 2.1 | - |
| China | 8.8 | - | - |

Source: (Milk and milk products in the European Union, 2006; * Czech Statistical Office 2008)

ing the healthy nutrition and growth of school children and youth by carrying out the School Milk project.

The consumption of milk and dairy products by Czech citizens has undergone some development in the recent years. At the beginning of 1990s, the consumption of milk and dairy products dropped dramatically: especially due to the increase in consumer prices. Since 1994, it has been about 200 kg/inhabitant/year with the annual variation of 2-6 %. At present, milk and dairy products belong to products characterised by increasing consumption. There has been some revival in consumer demand [6]. The consumption of milk, cheeses and butter is in chart II.

MATERIAL AND METHODOLOGY

The paper aims at finding out how often families with small children buy milk. The survey begun with the parents of 9-to-11-year-old children attending primary school in Letovice with the aim to determine the consumption of milk in individual families and identify possible interest of the families in joining the School Milk programme and, by this, getting cheaper milk and yoghurts for their children's snacks in the school.

103 parents of children attending the primary school in Letovice, Czech Republic, participated in the survey. The data was collected by questionnaires. A set of questionnaires on the consumption of milk and dairy products was designed for the survey at the Department of Economics and Nutrition Hygiene at the Military University of the Ground Forces (Vyskov). Thus, questionnaires were designed for students of primary, secondary and tertiary education as well as for their parents. The paper presents the answers to questions included in the parent questionnaire. The questionnaire included 13 questions. Answers to some of them are dealt with here. UNISTAT and StatK25 software was used for statistical evaluation of the results. Graphs were created in Microsoft Excel.

RESULTS AND DISCUSSION

Most families of the respective group of students characterised their place of residence as town (60.19 %). The families had mostly four (51.45 %) or five (22.33 %) members; less frequently six (11.65 %) or three (10.68 %) members. Only 2 girls answered that they live in a two-member family; 1 boy lives in a seven-member family and 1 girl even in a nine-member family. There were no eight-member families in the set.

One of the questions inquired about the frequency of buying milk for the family. The answers are presented in Graph 1. Only common shopping for everyday or short-term consumption is concerned: not so called shopping for reserves.

The graph shows that four-member families buy milk most frequently: mostly on a daily basis (20.39 % of parents answered in this way); yet, some four-member families buy milk several times a week (16.5 % of respondents) or at least once a week (13.59 %). Only one two-member family and one four-member family buy milk rarely.

The next question inquired about the frequency of buying yoghurt for the family; also, common shopping was concerned. The results are presented in Graph 2.

The graph shows that, again, four-member families buy yoghurt most frequently: mostly several times a week (32.04 % of families answered in this way) or daily (15.53 % of parents). It is positive that no family answered that they buy yoghurt rarely.

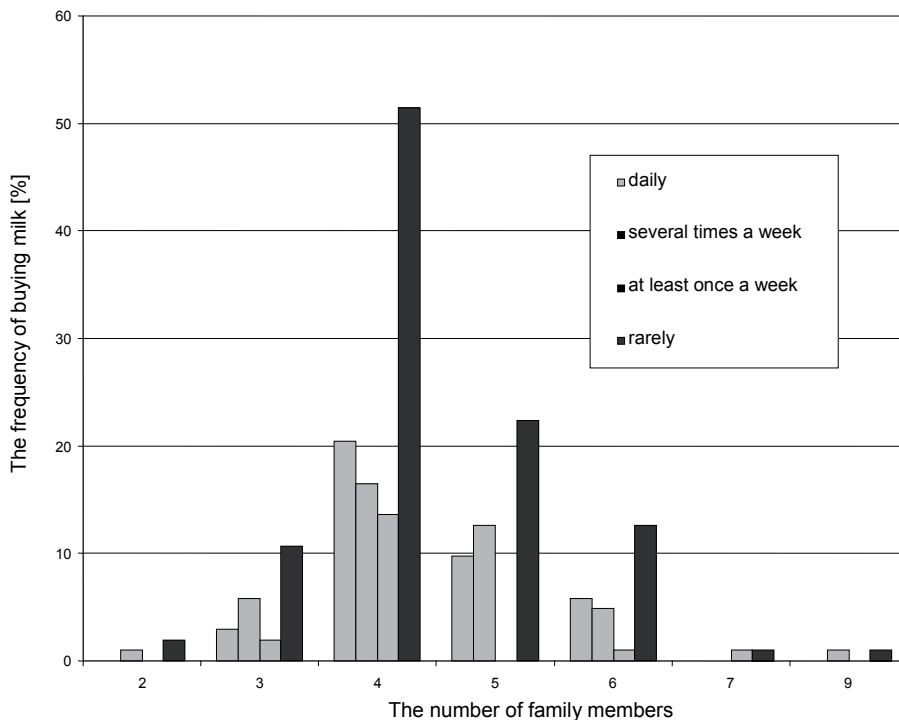


Figure 1 The frequency of buying milk according to the number of family members.
Częstość kupowania mleka wśród rodzin zależnie od ich liczebności

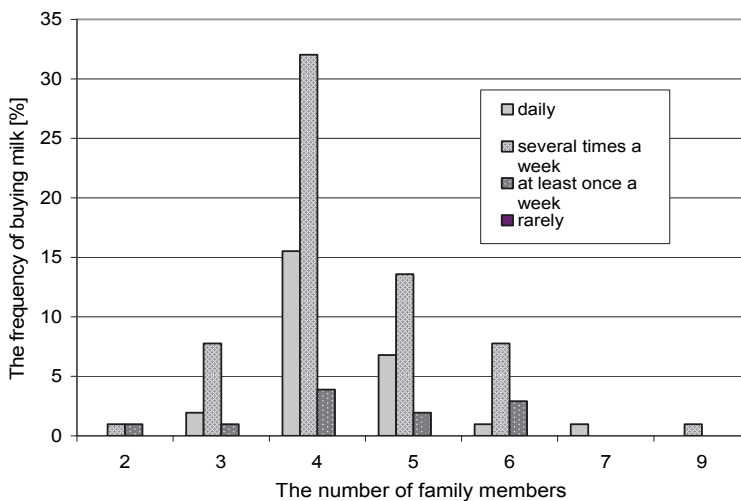


Figure 2 The frequency of buying yoghurt according to the number of family members
Częstość kupowania jogurtu wśród rodzin zależnie od ich liczebności

The last question presented in this paper inquired about the parents' interest in providing their children with milk and dairy products in the school. The answers are presented in chart III.

Table III Parents' interest in providing children with milk and dairy products in the school
Zainteresowanie rodziców spożywaniem mleka i produktów mlecznych przez dzieci w szkole

| Answer | Parents of | | Total |
|--------|------------|------|-------|
| | girls | boys | |
| Yes | 47 | 31 | 78 |
| No | 12 | 13 | 25 |

The chart indicates that parents would definitely be interested in providing their children with milk in the school.

CONCLUSIONS

The survey showed that most families of 9 to 11 years old children attending the primary school in Letovice have four members. Also, those who buy milk and dairy products most frequently are the four-member families: most families buy milk daily; dairy products are mostly bought several times a week. Most families would be interested in providing their children with milk in the school.

Four-member families buy milk and yoghurts most frequently. It ensued from personal questionnaires, this families are so-called model families. They are complete families: mother and father and two children. This families have the best economic potentials.

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Summary

The aim of this studies was to find out how often families with young children buy milk and whether the parents are interested in school offer of milk.

One hundred and three parents of the children attending the junior level of the primary school in Letovice, The Czech Republic, were taking part in the research. The research was taken in question-forms. The whole form included 13 questions, however the thesis supplies answers to only some of them.

It was found out that prevalent majority of the families of the focused group of pupils lives in the city. The questioned families had mostly four members: a mother, a father and two children.

To the question how often they buy milk, most families answered "seldom". It is mostly families of four who buy milk on a daily basis (this was stated by as much as 10% of questioned families of four members). Yoghurts are bought by families with four members mostly a few times a week (32% of questioned families of four answered so) or daily (15.5% of questioned families of four answered so).

To the question ascertaining the parents' interest, as the case may be, in supplying milk and dairy products for a consideration to the children directly at school, 78 parents answered in the affirmative, which is 75.7% of respondents. It means that the parents are interested in state-aided school milk.

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Streszczenie

Celem pracy było stwierdzenie, jak często kupowane jest mleko przez rodziny z dziećmi i czy rodzice są zainteresowani ofertą spożywania mleka w szkole.

W badaniu wzięło udział 103 rodziców uczniów szkoły podstawowej pierwszego stopnia w Letovicích (Republika Czeska). Badania przeprowadzono metodą ankietową. Ankieta zawierała 13 pytań; w niniejszej pracy zamieszczono opracowanie wybranych pytań.

Większość ankietowanych rodzin zamieszkiwało w mieście i były to rodziny 4-osobowe: matka, ojciec i dwojka dzieci.

Najwięcej rodzin dokonywało zakupu mleka rzadko. Czteruosobowe rodziny codziennie kupowały mleko (10 % badanych) a jogurt – kilka razy w tygodniu (32 % badanych) lub codziennie (15,5 % badanych). 75,7 % ankietowanych rodziców było zainteresowanych odpłatnym dostarczaniem mleka oraz produktów mlecznych dzieciom bezpośrednio w szkołach.

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