

Food composition data in Eastern Europe

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In order to increase a collaboration of institutions in Eastern European countries working on food composition activities, discussing existing problems and formulating recommendations for future co-operation, FAO had charged the Food Research Institute of Bratislava to organize a meeting, which was held on 22–27 April 1995 in Modra, Slovak Republic. Twenty-seven participants from 13 Eastern and Central European countries took part in this meeting. This presentation sets out the meeting summary with conclusions and recommendations, and an overview of status of food composition activities in Eastern Europe as well as detailed information about national food composition tables (title, year of the last edition, number of food entries, number of nutrients, language), and information on food databanks and software (title, number of food entries, number of nutrients, type of computer, national language, programming language, date of first and latest version, applications, data accessed) in the mentioned region. Copyright © 1996 Elsevier Science Ltd

INTRODUCTION

Over the past few years FAO has increased its activities in the food composition work. Some regional and subregional meetings were held in several centres with the main goal of strengthening the collaboration of experts and institutions in the region. With the same aim, mainly to discuss existing problems and formulate recommendations for future co-operation, FAO had charged the Food Research Institute of Bratislava to organize a meeting, which was held on 22–27 April 1995 in Modra, Slovak Republic (FAO, 1995a,b).

The objectives of the meeting were as follows:

1. To review the status of food composition activities in Eastern Europe and the technical capacity to analyse and report on food composition.
2. To discuss priorities for data review and data generation, together with possible contributions from institutions in the Eastern European region.
3. To discuss the steps required to compile mutually acceptable databases, with potentially interchangeable data, in each of the represented countries.

Thus, through this regional meeting, FAO was promoting the establishment and strengthening of national food composition programmes. It is anticipated that this effort will stimulate the production of more data that are reliable, comparable and meet better users' needs.

STATUS OF FOOD COMPOSITION ACTIVITIES IN EASTERN EUROPE

Eastern European countries are faced with major changes in their national food supplies, the increasing role of food industries in feeding people and increasing imports of food that affect the nutritional status of their populations. One of the tools needed by government and industry to manage such changes effectively is information on the composition of food.

The general topics identified for discussion among participants of the above-mentioned meeting were: national programmes for Eastern European countries; regional collaboration among Eastern European Countries; and linkage between food composition, food control and food industry activities.

As a result of the meeting, 20 recommendations focused on the three mentioned topics and the three concluding recommendations addressed to FAO were formulated. Recommendations in the field of national programmes were focused mainly on promoting the process of increasing the awareness among policy makers of the social and economic benefits of national food composition programmes; encouraging government policy makers as well as professional associations; improving training, education and upbringing; and on developing a special interest application of food composition data such as databases for components associated with food intolerance. Recommendations in the field of regional collaboration among Eastern European countries are divided into three sets: the first is designed to provide the basic facilities and

support for regional food composition activities in institutions; the second one is designed to generate the essential co-operative work among institutions at the regional level; and the third one concerns the activities to initiate and maintain the production of high-quality data and additional functions for specific purposes. Recommendations in the field of linkage between food composition, food control and food industry activities are focused on: facilitating the gathering of information on activities of food control and food composition facilities in each country to determine the current status of activities; facilitating the national and regional collaboration among food control, food composition and food industry laboratories; and fostering increased interest in food composition activities. Additional recommendations addressed to FAO suggest technical and financial assistance by FAO in all these activities.

In view of the above ideas and recommendations, FAO should also co-ordinate the application and utilization of food composition databases in our region. The most important applications are:

- assessment and planning of human nutrient intakes (nutrition policy);
- energy and nutrient content declaration on the labels;
- human nutrition management (models of optimal nutrition for all categories of population, information service for users, mainly for food products producers);
- frequent illness prevention programme management;
- education, upbringing and training.

In addition to these recommendations, the following cross-cutting issues were identified by the meeting participants

Table 1. Food composition tables

Country	Title	Edition	Number of foods	Number of components (nutrients)	Language
Albania	<i>Përbërja Kimike e Produkteve Ushgimore</i>	not edited	23	13	Albanien
Belorussia	use Russian tables				
Bulgaria	<i>Tables of Composition of Bulgarian Foodstuffs</i>	1975	1113	various	Bulgarian
Croatia	<i>Tablice o sastavu namirnica i mića</i>	1990	560	36	Croatian
Czech Republic	<i>Potravinové tabulky I.díl</i>	1992	828	15	Czech
	<i>Potravinové tabulky II.díl</i>	1993	796	12	Czech
Estonia	<i>Ruoka-aineiden ravintoainesisältö (Food Composition Table of Finnish Food Items)</i>	3rd edn, 1990	400	64	Finnish (English and Swedish Introduction and vocabulary for nutrients and food names)
Hungary	<i>Tápányagtáblázat</i>		1700	8–20	Hungarian
Lithuania					
Poland	<i>Food Products Composition and Nutritive Value</i>	1990	224	78	Polish, English
	<i>Tables of Trace Elements in Food Products</i>	1992	225	8	Polish, English
	<i>Dishes. Composition and Nutritive Value</i>	1994	171	51 + 7 indexes	Polish, English
	<i>Gluten Free Products</i>	1995	64	23 + 3 indexes	Polish, English
Romania	<i>Foodstuff Composition Tables—Content of Calories and Nutrients</i>	1994	355	13	Romanian
Russia	<i>Chemical Composition of Food, Vol. 1 (2nd edn)</i>	1987	1580	16–22	Russian
	<i>Chemical Composition of Food, Vol. 2 (2nd edn)</i>	1987	600	90	Russian
	<i>Chemical Composition of Meal and Ready-to-eat Dish (2nd edn)</i>	1994	971	16–22	Russian—with English vocabulary for nutrients in titles of tables, for cooking terminology, for name foods and dishes (about 1600 terms)
Slovak Republic	<i>Food Tables I—Primary Foods</i>	1988	632	35	Slovak, English—Summary and Registers
	<i>Food Tables II—Food Products</i>	1992	763	35–42	Slovak, English—Summary
	<i>Food Tables III—Food Raw Materials and Dishes for Vegetarian Diet</i>	1994	232	68	Slovak, English—Summary and Registers
Slovenia					

Table 2. Food composition data banks

Country	Title	Number of food entries	Number of components (nutrients)	Model of computer	National language	Program language	Date of latest version
Albania							
Belorussia							
Bulgaria	<i>National Food Composition Data Bank</i>	762	53	IBM PC/XT or AT with min. 512 K memory	Bulgarian	Lotus 1-2-3 Module	1994
Croatia	<i>National Food Composition Data Bank</i>	about 700	36	IBM compatible PC 486	Croatian	ZIM	1994
Czech Republic	<i>National Food Composition Data Bank</i>	1500	17	PC	Czech	FoxPro	1993
Estonia	<i>User's Data Bases</i>	208 (more complete ca 500)	54 (60 and more)	PC 486 'Gateway' PC	Estonian	FoxPro	1995
		310	26	PC 286, 246 a.o.	Estonian	Clipper	1995 (Russian comp. tables)
Hungary	<i>National Food Composition Data Bank</i>	600	Various, max. 111	DEC 550 (ULTRIX opsystem) INGRES DBMS	Hungarian, English	Euronims	1995
Lithuania	<i>National Food Composition Data Bank</i>	about 300	55	PC/AT 286	Lithuanian	Pascal	first version 1992
Poland	<i>User's Data Bases</i>	according to user's requirements	according to user's requirements	dependent on user	Polish		1990
Romania							
Russia	<i>National Food Composition Data Bank</i>	800	15-22	IBM-Compatible 486	Russian	Paradox 3.5	1990
Slovak Republic	<i>Referencee Data Base User's Data Bases</i>	3000	200	RISC CDC 4375	Slovak	Informix	1994
		according to user's requirements	according to user's requirements	PC 386, PC 486	Slovak, English	FoxPro	1994
Slovenia							

Table 3. Nutritional software

Country	Name of program	National language	Program language	Date of latest version	Applications	Data accessed
Albania Belorussia Bulgaria	BULTABL version 3.0	Bulgarian	Lotus 1-2-3 Module	1988	Composing tables for the chemical composition of Buglarian foods, calculating chemical composition of different foodstuffs and dishes	Total chemical composition of foods (53 parameters included)
	MA	Bulgarian	Clipper	1989	Calculating chemical composition of different foodstuffs and dishes' nutritional epidemiology	Total chemical composition of foods (26 parameters included)
Croatia	HRANA	Croatian	ZIM	1995	Planning of meals and evaluation of nutritional intake (individual and group)	
Czech Republic	VÝŽIVA	Czech	FoxPro	1995	Food evaluation, supply 17 of basic nutritive factors including energy rate of essential nutrients. Detailed analysis of intake food with possibility of determination of mistakes and remedy	
	P66480 NUTREV	Czech	FoxPro	1995	Nutrition evaluation, daily intake optimization	
Estonia	ANKE 1111	Estonian	Clipper	1995	Nutritional software for calculation of the nutrient content with statistical part of calculations	
	MENY	Estonian	Clipper	1995	Composition of menus for hospitals with the aim of optimizing a balanced diet (different diseases' diet therapy)	
	DAN COST ver. 2.0	Estonian, Russian		1994	Calculation of nutrient content of dishes or menus. Nutrient calculations (46 items)	
Hungary Lithuania		Lithuanian	Pascal	1992	PC program for calculation of nutrient intake of population (dietary analysis system)	
Poland	FOODMany different users' programs	Polish	Clipper	1994	Recipe calculations, whole daily diet calculations, dietary analysis	224 raw food materials and their 81 nutrients and three heavy metals is delivered with the program
Romania Russia	NUTRITION	Russian, English	Winword 6.0	1993	Calculation of chemical composition of different dishes, calculation daily, weekly, monthly and annual intake of nutrients	Overview composition of about 1000 foods and dishes in the range of 50 nutrients
Slovak Republic	ALIMENTA I	Slovak, English	Turbo Pascal version 5.5	1993	Calculating chemical composition of different foods and dishes, composition of foods	Overview of composition of primary foods and food products (over 1000 of the most important foods), evaluation of the composition of served dishes and meals in the range of 180 nutrients
	ALIMENTA II	Slovak, English	FoxPro version 2.5	1994	Calculating chemical composition of different foods and dishes, composition of foods, calculating daily or weekly intakes of nutrients	Overview of composition of primary foods and food products (over 1000 of the most important foods), evaluation of the composition of served dishes and meals in the range of 180 nutrients
Slovenia						

- appropriateness of data;
- management of databases;
- implementation of activities.

One of the meeting objectives was to review the status of food composition activities in this region. On the basis of the exactly defined questions (in three types of questionnaires) the representatives of participating countries helped us to prepare the summaries given in the following tables (of 13 participating countries only two did not have any data—this demonstrates a high degree of data reliability). Table 1 gives information on national food composition tables (country, title, year of the last edition, number of food entries, number of nutrients, language); Table 2 gives information on food databanks with their software (country, title, number of food entries, number of nutrients, type of computer, national language, programming language, date of latest version); and Table 3 gives information on nutritional software with some additional information (applications and data accessed) in the mentioned region. From this summary we can see that it is possible to divide participating countries into three groups:

1. countries with existing national food composition databanks, national food composition tables and relatively good experience in this work (in alphabetical order: Croatia, Hungary, Poland and Slovakia);
2. countries which are building up national food composition databanks or use their own national food composition tables (in alphabetical order: Bulgaria, Czech Republic, Estonia, Lithuania, Romania, Russia);
3. countries which have recently started food composition activities (in alphabetical order: Albania, Belarus, Slovenia).

CONCLUSIONS

The reported meeting, which has started a close co-operation among specialists from Eastern European countries, should promote and strengthen national food composition programmes by encouraging government policy makers, as well as professional associations and industry, to organize, co-ordinate and standardize all aspects related to food composition activities. It will contribute to the creation and establishment of a food composition database network in the region, open to all countries and institutions which subscribe to a common set of priorities for data compatibility. It will also contribute to an improvement in the quality and availability of data for inclusion in food composition tables and databases.

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REFERENCES

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