

## Review of Third Annual Conference and USDA Update

Robert Rizek

I would like to thank Dr. Houser and Mrs. Petot for arranging this conference, and for giving me and my staff an opportunity to meet with you.

My topic today includes an overview of the Third Nutrient Data Bank Conference. We hosted the Third Conference for two reasons. First, Joan Karkeck, Ann Sorenson, and others who had been instrumental in organizing the first two meetings requested us to host and plan a third meeting. Secondly, we recognized the importance of continuing the information exchange which had begun with the Seattle meeting.

The Third Conference attracted over a hundred participants. Not only experienced users of computerized nutrient data, but also people who were just beginning to consider the possibilities of automating their nutrient data operations, were encouraged to attend. We notified the food companies who were among our major data suppliers about the meeting, and a number of them sent representatives. Also, representatives of the computer service industry who were interested in offering services to nutritionists and dietitians were welcomed.

We chose a format different from the first two meetings. Instead of asking participants to form specialized task forces, we presented a roster of speakers who would provide background information about the development of USDA's data bases, and also the operation of a variety of specific computer systems utilizing nutrient data.

One session of the program covered the role of the Government in providing nutrient data - the operation of our Nutrient Data Bank, how the nutrient data sets are developed, how one may obtain the data sets, the FDA's interest in the data bank, and the reliability of nutrient data. Another session was devoted to specific uses of nutrient data bases. Presentations were given which pertained to hospital, food service, industry, and research applications. The specific research areas discussed were the USDA Food Consumption Survey, the use of a nutrient data base in the Diet, Cancer, and Nutrition Program, and the data base and computer system developed for the Mr. Fit and Lipid Research Clinics projects funded by the National Heart, Lung, and Blood Institute.

There have been a number of changes at USDA since last year, so I would like to take a moment to explain how our Institute fits into the new organization of the Department. We are in the USDA's Science and Education Administration (SEA). Within SEA, we are a part of the recently created Human Nutrition Center, which operates under the administration of Dr. D. Mark Hegsted. The Nutrition Institute of Beltsville, Maryland, the Human Nutrition Laboratory in Grand Forks, North Dakota, and the new labs at Tufts University and Baylor are also a part of this new Center.

Within the Consumer and Food Economics Institute (CFEI), the Nutrient Data Research group operates the Nutrient Data Bank and produces Handbook 8. The Survey Statistics Group provides the computer system and statistical support for the Data Bank and also prepares the magnetic tapes of the food composition data sets which are available for purchase.

CFEI is also responsible for the Nationwide Food Consumption Surveys which come under the Food Consumption Research Group. We have one other group, the Food and Diet Appraisal Research Group, which is responsible for a variety of nutrition related projects, such as developing dietary guidance materials, providing food plans at different cost levels, estimating the nutrients available in the nation's food supply, and evaluating the effectiveness of various intervention programs.

I won't go into the operation of the Nutrient Data Bank since it was described in detail last year. The top priority, however, is to update Handbook 8, which is released in sections by food group. Tapes of the sections are available through a private company. We have a leaflet which describes how to order copies of the Handbooks, and a brochure which describes all our dietary guidance materials, providing food plans at different cost levels, estimating which describes how to order copies of the Handbook and a brochure which describes all our data sets that are available on magnetic tape.

Since last year, the section on Baby Foods has been released. There has been a delay making the tape for this section available because we are trying to provide estimates where gaps appear in the data, but it should be available for purchase within 2 months.

We are in the last stages of preparing sections for publication of three additional food groups: fats and oils; poultry; soups, sauces, and gravies. We are also preparing Data Base II (the intermediate level) summaries for pork and vegetables. We have also prepared a provisional table of the nutrient content of 24 frozen and canned vegetables. These data are average values generated from the nutrient data which are presently contained in our data base. Most of the data were supplied to us by the food industry, who ran the analyses for nutritional labeling purposes. Copies of this table are also available here today. For those who are using data sets created from Handbook 8 or Handbook 456

and would like to update their tapes from this table, we have included the item numbers from the Handbooks.

When the current revision of Handbook 8 is complete, we expect it to contain over 4,000 items. We are including over 60 nutrients in this revision whenever relevant and when the data are available. In addition to the proximate composition, energy, vitamins, minerals, amino acids, and fatty acids that we report in Handbook 8, we are receiving requests for data on sugars, starches, and complex carbohydrates. I do not have to tell you that there are critical gaps in existing nutrient composition data. While we do not have our own laboratory, we work closely with the Nutrient Composition Laboratory in the Nutrition Institute. We also have limited funds to support outside research. But laboratory analysis of foods is expensive, and we clearly do not have the resources to analyze every food, for every nutrient.

In conjunction with the Nutrient Composition Laboratory, we have drafted for consideration a set of guidelines for setting priorities in nutrient composition research. They cover priorities for development of representative nutrient data, as well as research on methods. Because of the limited time I cannot go into these priorities in detail, but we have prepared a summary which outlines how priorities would be set. This summary is available and we would appreciate your written comments.

Insofar as possible, we are sponsoring research to help fill major gaps. Over the last 3 years, we have sponsored a project on the folacin content of foods. These results will be incorporated into the sections of Handbook 8 as they are released.

We currently have a project underway which covers vitamins, minerals, and proximate components of seven vegetables. The products are being sampled three times during one season, and analyses are run before and after cooking, canning, and freezing. The canned and frozen products are also analyzed after preparation for the table. The results of this research will allow us to compare the effects of cooking methods on nutrient retention levels and yields of the foods, and to study the effects of canning and freezing. We plan to sponsor similar research on other foods in the future.

We are also working with Giant Food Stores, the United Fresh Fruit and Vegetable Association, the FDA, and the Land Grant University system to develop and carry out plans for analyzing fresh fruits and vegetables.

We also encourage other research institutions to study nutrient composition of foods, and our staff is available to give advice on needed research (for both foods and nutrients), analytical procedures, and sampling plans.

Since last year, we have developed for our own purposes a program on a mini-computer to analyze diets for seven nutrients,

using data from Home and Garden Bulletin No. 72. It computes daily and weekly intakes and the percent of RDA based on the average daily intake. We can provide a listing of our program, and the information needed to run it, to anyone who has a mini-computer or who is thinking about using one.

Because of the time it will take to complete the revision of Handbook 8, we are investigating ways that we can provide information from the updated sections in a format that would be more easily utilized by those of you who are now using tapes of 456. In addition to those materials which were already mentioned, we have for distribution a list of publications prepared in our Institute and instructions for ordering them. We also have a listing of articles containing nutrient data prepared by staff of the Nutrient Data Research Group and published during the last few years in the ADA journal.

For those of you who are just beginning to consider going to an automated system, we will be happy to provide you with information about our available data sets. We have programs in use at our Institute for dietary analysis, and listings and procedures manuals for these programs are available upon request.

To conclude, we do realize your needs, as well as ours, for nutrient data. We are doing everything possible within our staffing and funding limitations to update Handbook 8. We realize that in the meantime you may need to develop your data bases from other sources. I must caution you not to use data blindly. Just because a food has been analyzed somewhere, at some time, and a value exists, does not necessarily mean that the value is within an acceptable range. The topic of nutrient data reliability was addressed last year, and I urge you to go back and review the statement which summarizes that presentation in the Proceedings of last year's conference.

Again, I would like to thank Dr. Houser and his staff for their efforts in hosting this conference. May we have many more, where my staff, I, and others as data generators, have an opportunity to meet with those of you who are the data users.