

Postgraduate Course on Production and Use of Food Composition Data in Nutrition, Wageningen

Project: 481

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The purpose of the Foodcomp Course organized by Wageningen University in Netherland, in October 2015, was to train people, which work is linked to the food composition field, in order to give them the ability to generate high quality food composition database.

The data on the nutritional composition of foods are useful for professionals or consumers in many areas, for example :

- In medical practice, to calculate food intake and dietary plans for therapeutic purposes.
- In the field of medical research, to investigate the link between food and health or diseases.
- For public health authorities, to calculate the nutritional intake or the exposure level of the population and develop food based dietary guidelines and safety standards.
- For food producers, to calculate the nutritional composition of the food they produce in order to inform the consumers (food labelling).
- For consumers, to know their nutrient intake, simply for personal interest or health concerns.
- In agriculture research, to investigate biodiversity and develop or select new cultivar or breed adapted to the need of the population.

In all these areas, high quality data are needed, reflecting as accurately as possible the real nutrient composition of consumed food. But the basic foodstuffs composition varies strongly according to influence factors. Among them, the composition of plant foods depends on cultivar, ground quality, climate, mode of culture, harvest time, preparation and storage methods, etc.. For animal food products, other additional factors have to be taken into account, like the breed, the feeding quality or breeding conditions.

Chemists, nutritionists, data processing specialists, authorities and many actors are concerned with the constitution of a food composition database. The data compilation is carried out in several stages. Each one requires a certain level of quality, to ensure the reliability and the representativeness of the final results. The process implies:

- Goals setting and selection of foods and nutrient to be analysed, according to the goals.
- Design and execution of a sampling plan. Samples should be as representative as possible as consumed food in the country and treated with minimal interferences that may influence food quality.
- Selection of the most appropriate analytical methods and equipment and analyses in compliance with good practice.
- Compilation and referencing of results.
- Literature research for missing values.
- Recipe calculation, to obtain composition of foods as consumed..

Even without being in charge of each stage of food composition database management, the knowledge of good practices for all these steps is essential to compile food composition database. This course was really helpful and I sincerely thank the SFEFS for his financial support.