Europe's food agency investigates harmful PAHs in food

18/10/2005 **- Europe's food agency calls on scientists across the food industry to contribute data on the potentially carcinogenic compounds Polycyclic Aromatic Hydrocarbons (PAH) identified in foods.**

Increasingly pinpointed by consumer organisations as a food safety issue in the food chain, PAHs are a group of over 100 different chemicals that are formed during the incomplete burning of coal and oil, or other organic substances like tobacco or charbroiled meat.

Consumers might be exposed to PAHs by eating grilled or charred meats, contaminated cereals, flour, bread, vegetables, fruits, meats as well as processed or pickled foods.

Commission Regulation (EC) No 466/2001 as amended by Regulation 208/2005 sets maximum levels for polycyclic aromatic hydrocarbons (PAH), specifically benzo[a]pyrene, in certain foods.

But in view of remaining uncertainties on levels of carcinogenic PAH in foods, especially on those PAHs identified by the former EC Scientific Committee on Food (SCF) to possess both genotoxic and carcinogenic properties, the rules have provided for a review of the measures by the Brussels by 1 April 2007.

As such, the European Food Safety Authority (EFSA) has developed a database, on the Commission's recommendation 2005/108/EC, to investigate the levels of PAHs in certain foods.

The database will look into: the respective levels and relative proportions of benzo[a]pyrene and other carcinogenic PAH, in particular the 15 EU priority PAHs and the additional PAH identified by JECFA in various foods.

In addition, the EFSA database will investigate the effects on PAH levels of different production and processing methods used.

"Data from all kind of laboratories are needed- official food control, research, and the food industry," says EFSA.

Late last year an expert group in Brussels backed a Commission proposal for tighter levels of Polycyclic Aromatic Hydrocarbons (PAH) found in grilled meats.

The new barrier levels against PAH contamination, in particular benzo(a)pyrene, firm up temporary measures set up while the Commission accumulated more data on this potential contamination problem highlighted by stakeholder groups.

"Contamination with PAHs has been on our agenda for some time. This follows the incidents of contamination in vegetable oils in particular in 2001," commented outgoing EU commissioner for health and consumer protection David Byrne.

The European food industry has taken on board concerns linked to PAHs and food production with a range of new initiatives to co-ordinate research findings. Scientists in Spain, for example, have compiled an extensive database of harmful compounds formed during food preservation and cooking.

Led by Paula Jakszyn at the University of Barcelona, the researchers set out to develop a food composition database of nitrates, nitrites, nitrosamines, heterocyclic amines (HA), and polycyclic aromatic hydrocarbons (PAH) in foods.

"An accurate assessment of dietary intake of such compounds is difficult, mainly because they are not naturally present in foods, and they are not included in standard food composition tables," said the researchers, reporting their findings in the August 2004 issue of the US *Journal of Nutrition*, (134:2011-2014, 2004).