

# Eurofins laboratories quickly react on current food scandals



In 2001, chloramphenicol turned out to be the beginning of a 'scandal' period. Our Eurofins member laboratory in Hamburg, Wiertz - Eggert - Jörissen (W.E.J.), established the analysis of chloramphenicol to react on the increasing demands due to this scandal. This Eurofins laboratory has considerable experience in establishing new methods within a very short time, offering the clients quick answers to urgent analytical demands and - in addition - providing the highest degree of quality and safety. Conclusion: to serve these clients' demands also means being able to react dynamically and rapidly to market developments whilst still meeting high quality requirements.

Since the end of 2001, chloramphenicol, acrylamide, MPA, nitrofurans and also nitrofen not

only covered the headlines of popular newspapers, they were also an important part of the daily business in the Hamburg laboratory and analytical methods have been established to test for these compounds in a variety of food and feed matrices:

#### December 2001:

Chloramphenicol was established with a GC-MS/MS method, offering lower detection limits (0.03 – 0.3 ppb) than alternative methods such as ELISA.

#### April / May 2002:

In addition to the acrylamide analysis performed at the Eurofins Denmark laboratory (see Newsletter 10), the Eurofins site in Hamburg also established this test using a modified LC-MS/MS method of the original Swedish version. W.E.J. additionally provides the samples for the BgVV<sup>1</sup>-ringtrial for acrylamide testings and successfully took part in other ringtrials (e.g. FAPAS).

#### June 2002:

Nitrofen analysis was set up using a GC-MS (with NCI) method to cope with the overload of samples.

#### July 2002:

Analysis of the MPA hormone (medroxyprogesterone acetate) was established (ELISA) a week after the hormone was found in pigs.

#### July 2002:

The analysis of nitrofurans metabolites was

established with a LC-MS/MS method (metabolites of nitrofurazon, furazolidon, nitrofurantoin, furaltadon) with a current detection limit of 1 ppb.

Establishing analyses for actual market demands may appear attractive from several points of view. Nevertheless, it also means a high degree of flexibility as well as having the right staff and analytical capabilities. In addition, the results produced can often be a deciding factor in the fate of large quantities of products, and sometimes in the future of the clients themselves. As a result, the quality of the analyses as well as their interpretation require expert knowledge and validated, accredited methods.

Since December 2001, about 5000 samples have been tested for the parameters mentioned above, on top of the usual sample flow. The demands on the laboratory have been followed with the investment in technical staff and in a new GC-MS/MS and two new LC-MS/MS instruments which enable the Hamburg W.E.J. laboratory to extend analytical capacities especially on organic contaminants like drug residues ●

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## Eurofins - Analytico Food, specialist in challenge testing



Analytico Food, the Dutch food analysis division of the Eurofins Group, is pursuing its expansion by offering its customers the highest quality in food testing.

Following the development of many new and improved (semi) liquid foods and beverages in the food market, there is a big interest in the preservative properties of these products. It is important to know if micro-organisms are able to grow in a product. Analytico Food is able to provide this information based on the results of special customer designed research. The test consists of challenging the product with a prescribed inoculum of suitable micro-organisms, store the inoculated product at a predefined temperature and analyse it at specific intervals of time. It is based on the European Pharmacopoeia suppl. 2001.

Based on risk assessment and the specific requirements of the customer, Analytico Food will make a proposal. This will describe which micro-organisms will be used, at which temperature the product is stored and the intervals of time at which the product will be analysed. After the analysis the results will be given in Colony Forming Units (CFU) for each micro-organism separately.

**Depending on early results, it is possible to change the time intervals during the study.**

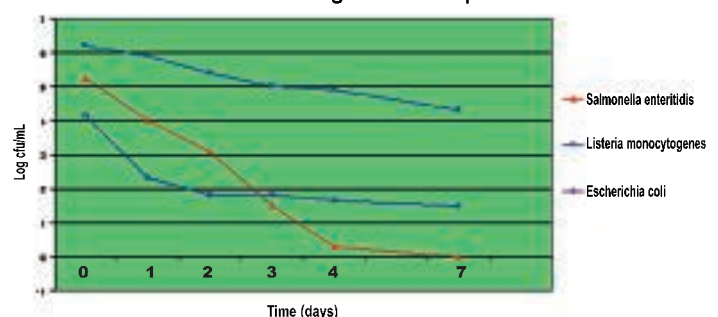
The preservative properties of the product are adequate if, in the conditions of the test, there is a significant fall or no increase in the number

of micro-organisms in the inoculated product. The criteria of acceptance, in terms of decrease in the number of micro-organisms with time, vary for different types of products.

Analytico Food can provide :

- An excellent study based on years of experience in challenge testing, HACCP and risk assessment
- A clear report with all the results
- Graphs showing growth curves to give a better insight into the behaviour of the micro-organism in the product
- Important information on the preservative properties of the product ●

**Growth curves of micro-organisms in a product**



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