

vizsgált termékekben a Nébih szakemberei. Négy, véletlenszerűen kiválasztott majonéz flakon esetében a kupakok összkiodódását is megvizsgálták, amelyek megfeleltek az uniós rendelet által meghatározott határértéknek.

Kifogásolási okok:

A majonézekben jelen lévő tartósítószer mennyiségét rendeletben szabályozzák. A 22 majonézből kettőnél a benzoésav – azaz a tartósítószer – tartalom kis mértékben meghaladta az előírt határértéket, így a felelős vállalkozásokkal szemben hatósági eljárás indult. Ezek a termékek nem kaphattak helyezést a kedveltségi vizsgálat rangsorában sem. Emellett szintén adódtak jelölési hibák.

A 22 majonézből összesen három terméknél adódott olyan probléma, ami miatt hatósági eljárás indult: az egyiknél jelölési hiányosságok, míg a másik két esetben minőségi és jelölési hiba miatt. A különböző, enyhébb jelölési hibák miatt az élelmiszer-vállalkozókat figyelmeztetésben részesítik a szakemberek, és intézkedési tervet kell benyújtaniuk azok kijavítására. A határérték feletti tartósítószer jelenléte, azaz minőségi hiba miatt a Nébih felügyelői a két termék esetében összesen 300.000 Ft élelmiszer-ellenőrzési bírságot szabnak ki az érintett vállalkozásokkal szemben.

A kedveltségi vizsgálaton ezúttal is szakértő és laikus kóstolók pontozhatták a termékeket „vak-kóstolásos” módszerrel. A majonézek Szupermenta rangsora a külső megjelenés, a szín, az illat és az íz értékelésével alakult ki. A vizsgált termékek közül az Univer majonéz nyerte el leginkább a kóstolók tetszését. Második lett a Penny terméke, míg harmadikként a Reál majonéz végzett.

További információk, érdekességek és a részletes vizsgálati eredmények elérhetők a Nébih Szupermenta termékteszt oldalán: <http://szupermenta.hu/majonezeket-teszteltunk/>

*If it's April, it's Hungalimentaria*

## HUNGALIMENTARIA 2019

**One of Hungary's most important food safety conferences and exhibitions, Hungalimentaria will be organized again in 2019, for the 12<sup>th</sup> time. The event will take place under the auspices of Róbert Zsigó, State Secretary for Food Chain Supervision.**

The main objective of the event is to bring the scientific and practical aspects of analytical chemistry, microbiology and molecular biology to the attention of decision-makers utilizing the analytical results, of employees of the laboratories performing the analysis of foods and feeds, of representatives of the food industry and of all interested parties. Two years ago there were more than 300 participants and 20 exhibitors.

The Hungalimentaria conference will be held on April 24-25, 2019 at the Aquaworld Resort Hotel in Budapest, with the motto: „Think about what you put in the basket – what does the lab has to say about it?”

There will be several sections organized at the event on the following topics: food analytical methods, food and feed microbiological methods, as well as law and quality management, and also debuts the HappyFish project, whose goal is to determine the criteria for quality fish meat.

### ***Hungarian fish is safe and healthy***

**The reassuring result of a survey carried out in Hungarian fish ponds is that, in almost all cases, the concentrations of harmful substances analyzed in fish were around the very low detection limits.**

The main objective of the project titled “Development of a new risk management model to improve water and food safety in the fish product line”, referred to in short as HappyFish, and supported by the National Research, Development and Innovation Office is to determine the criteria for quality fish meat, and to propose limit values for further legal regulation. The latter, unfortunately, are somewhat

lacking in the case of fish products, especially in the case of freshwater fish products.

As the result of the joint work of WESSLING Hungary Kft., the consortium leader, the Institute of Aquaculture and environmental Safety of Szent István University (Gödöllő), its Department of Refrigeration and Livestock Products Technology (Budapest), The Fishmarket Kft. and SKC Consulting Kft., important facts are already being reported at the mid-point of the project.

Less than 10% of the more than five hundred toxic compounds analyzed could be detected in fish, sediment and water samples taken during the project.

Most pesticide and drug residues were only occasionally found in fish meat. The amounts of the compounds detected were also lower than the limit values for other animal products. Residues of the herbicide glyphosate, which was often detected in water samples, have not once been found in fish meat.

The analytical results collected in the project prove that the consumption of the meat of fish coming from domestic waters is safe and healthy.

### ***Can the taste of palinka be legally regulated?***

**What effect do legal regulations have on the taste and enjoyment value of palinka? In other words: is it possible that a distillate complies with all aspects of the law, but the sensory properties of the drink are still bad? How can analyses help in this matter?**

The compilation of Laboratorium.hu reveals the correlation between the quality of palinka, which can be determined organoleptically, and the requirements prescribed by current regulations. László Nagygyörgy of WESSLING Hungary Kft., an independent laboratory performing palinka analyses, among other things, said that the quality of palinka is primarily regulated by two important laws. One is Regulation (EC) No 110/2008 of the European Parliament and of the Council on spirit drinks, and the other is Law LXXIII of 2008, also called the Palinka law.

Laboratory analyses have shown that a palinka may taste bad, even if its measurable parameters meet all the legal requirements. For example, palinkas with lots of heads may have such high

concentrations of ethyl acetate, one of the volatile components, that the palinka will be completely unpalatable, even though it complies with regulatory requirements.

According to the expert, maybe the maximum value of ethyl acetate concentration associated with separation errors could be prescribed. Based on the known ethyl acetate concentrations of palinkas deemed by the judges to contain lots of heads at the national palinka competitions, this value is expected to be around 900-1,000 mg/l.

### ***Why is food hygiene important?***

**At the professional event of the Food Industry Directorate of the Hungarian Chamber of Agriculture (NAK) organized in January and February, the goal was to promote the improvement of knowledge and efficiency of medium and large food companies. On the topics of hygiene and food safety, our editor-in-chief also gave lectures.**

**Dr. Tamás János Szigeti**, director of business development of WESSLING Hungary Kft. and editor-in-chief of the Journal of Food Investigation pointed out in the introductory part of his lecture that it can only be ensured in the case of foods produced in accordance with good hygiene practice that the product manufactured is not harmful, but nutritious. Therefore, at every step of the production technology, it is necessary to examine what kind of mistakes can occur, which may affect the safety and quality of the finished product during manufacture. By monitoring the technology, the food produced is expected to meet the relevant requirements and can be placed on the table of the consumer with no risk. Dr. Tamás János Szigeti spoke in detail about these principles and the necessity of continuous monitoring.

### ***Glyphosate residues to be analyzed in drinking waters as well***

**Starting from this January, in addition to many other pesticides, glyphosate, often disputed by professionals and NGOs alike, also has to be analyzed in drinking water. Of course, this does not mean that anyone is at risk because of the presence of the residues of this pesticide**

**in the drinking water, but in any case, testing laboratories are faced with an additional task when carrying out water analysis according to the government decree.**

The article of Laboratorium.hu reveals that drinking water is monitored using extremely modern techniques and methods, while limit values are constantly being refined and lowered, and the range of compounds to be tested is also extended from time to time.

On January 1 of this year, the latest modification of government decree 201/2001 (X. 25.) on the quality standards and monitoring of drinking water came into force, extending the list of pesticide residues to be analyzed in drinking water.

Pesticides have been measured in drinking water for decades and, similarly to microbiological and chemical analyses, strict limit values have been prescribed for these molecules as well. Thousands of compounds are used in agriculture worldwide. In a given country, it is the legislators' task to determine what the target components to be analyzed should be, since it is practically impossible to analyze the entire pesticide residue spectrum.

One of the most important elements of the amendment that came into force recently is that the residual amount of glyphosate, a herbicide used at virtually all farms and covering almost the entire globe, as well as that of its metabolite, AMPA, has to be measured now.

A scientific study related to the analysis of glyphosate and titled „*The presence of glyphosate residues in our environment and possibilities for their analytical determination*” has already been published in the Journal of Food Investigation on September 30, 2014.

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## National Food Chain Safety Office news



### **Winter seasonal food chain inspection ends with fines of more than 8 million HUF**

**Rancid walnut kernels and poppy seeds with higher-than-permitted morphine levels were found by the experts of National Food Chain Safety Office (NFCSO) during the winter seasonal inspection, among other things. Most of the irregularities typically resulted in a milder, written warning. The final count came in at 3,312 inspections, 117 warnings, 14 activity restrictions and 125 fines, totaling 8,065,154 HUF throughout the country.**

The coordinated inspection from December 1 to December 31 was once again commissioned by Róbert Zsigó, State Secretary for Food Chain Supervision, and it was carried out by the experts of the National Food Chain Safety Office (NFCSO) and the county government offices in all important areas of the food chain.

The comprehensive inspection ranged from wines and sparkling wines, through fondant and sweets to meat and fish products, including smoked meats and frankfurters. Authority inspectors visited 471 food production sites, 2,079 food distributors and 762 catering establishments all over the country.

Although the number of inspections was almost the same as in 2017, the number of sanctioned cases increased overall. The main reason for this is that almost twice as many (117) written warnings were issued for less serious irregularities. Fines were imposed in fewer cases than last year (125), and so the total amount (8,065,154 HUF) was less than last year's. Activity restrictions were needed on 14 occasions.

More than 17,500 food items were examined by the inspectors. The irregularities found were similar to last year's, but their number was larger. Most often, hygienic deficiencies (4.2%), irregularities related to product quality and composition (3%), traceability problems (1.8%), and deficiencies related to the qualifications and medical fitness of employees (1.7%) were observed by the experts.

The proportion of withdrawn food items also increased to 425 (2.4%). Within this group, there was a particularly high proportion of expired fondant and other sweets offered for sale on markets or Christmas markets. However, in the case of the frankfurters, wines and sparkling wines, no such authority action was necessary.

The wine experts of NFCSO paid particular attention to the mulled wine, palinka and other alcoholic beverage products of the Christmas markets in Budapest. It was a pleasant surprise that the alcohol content of all the products that undergone the 336 rapid tests met the value indicated on their label. In general, it can be stated that on-site sellers of alcoholic beverages comply with the regulations and strive to market high quality products.

Approximately 80 samples were sent to the laboratories of NFCSO. Based on organoleptic tests, two walnut kernel products were found to be unsuitable for human consumption, and morphine contents higher than the permitted limit value were found by laboratory analyses aimed at the detection of alkaloids in two poppy products. In these cases, authority proceedings were initiated.

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### ***Medicinal products for the treatment of honey bees withdrawn from the domestic market by NFSCO***

The marketing and use of all production batches of the 5% solution of Oxxovar, then of the 3.2% solution of Destruktor was banned due to fipronil contamination, and the products were withdrawn from the market to the user level by the National Food Chain safety Office (NFSCO). These products are used for the supplementary treatment of the varroa mite treatment of honey bees. It is important to note that the medical treatment of varroosis or its supplementary treatment can still be carried out using other veterinary drugs and medicinal products with similar indications.

Several times last year, the death of bees treated with Oxxovar was reported by beekeepers. Solving of the case was finally made possible by the complex laboratory network and analytical system of NFCSO. The active substance content of the samples submitted by the beekeepers was adequate, and the pollutant examined on suspicion also gave a negative laboratory result. However, in one of the cases, fipronil was detected in the dead bees by the laboratory specializing

in this substance, thus the products used for treatment had also become suspicious of fipronil contamination. Both open units submitted by the beekeepers and commercially available unopened units were analyzed by the experts, and the presence of fipronil was detected in four batches of the medicinal product.

Based on the results, the marketing and use of all batches of the 5% solution of Oxxovar was banned by NFCSO, and its withdrawal from the domestic market was ordered. The experts are still investigating how the active substance that is dangerous to bees could find its way into the medicinal product. During the investigation, other preparations and products of the manufacturer were also tested. The 3.2% concentrate of Destruktor was also found to be contaminated in the tests, and so it was also withdrawn by NFCSO.

The detailed list of the products that became affected during the procedure can be found on the list of veterinary drug infringements: <https://portal.nebih.gov.hu/allatgyogyszer-termek-jogsertesek>

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### ***100% lemon juices are safe***

The complex analysis and checking of 13 lemon juices was carried out by the experts on the Supermint program of the National Food Chain Safety Office. The product tested included organic juices and juices made from concentrate. The presence of pesticides and preservatives, the vitamin and citric acid content of the products, as well as their pH value was checked by the staff of the office in the laboratory. From a food quality and safety point of view the lemon juices were satisfactory, but in 8 cases authority proceedings were initiated because of minor labeling errors.

The complex testing of thirteen lemon juices, including five organic ones and seven that had been prepared from concentrate, was carried out by the staff of NFCSO. The citric acid, sulfur dioxide and vitamin C content was analyzed by the experts in the laboratory, but the pH, as well as the presence of preservatives and pesticide residues were also measured. It is reassuring that all products have complied with the regulations from a food quality and safety point of view.

Inspectors of NFCSO checked the product specifications and they did not fail to inspect the labels either. The latter revealed a number of errors, such as non-compliance with the minimum



font size requirement for the test of the food label. Experts also found fault with the lack of nutrition data in Hungarian, the energy content, the irregular appearance of nutrition data, the lack of indicating the storage conditions and their incorrect marking. In the case of one product, the energy value and the amount of certain nutrients indicated on the packaging did not exactly match the values given in the product specification.

Because of the labeling problems, authority proceedings were initiated in the case of 8 out of 13 products. Warnings to the food businesses are issued by NFCSO, and they are obligated to correct the errors, while submitting an action plan.

The products were again scored by expert and lay judges in the popularity test, using the blind taste method. The Supermint ranking of lemon juices is based on a cumulative evaluation of appearance, texture, color, smell and taste.

Of the lemon juices tested, Limmi lemon juice was most preferred by the judges. Second was the product of Sweet Valley, while the 100% lemon juice of CBA called „lemon flavoring” finished third.

Further information, interesting tidbits and detailed test results are available on the NFCSO Supermint product test site: <http://szupermenta.hu/citromlevek-teszteltunk/>

### ***Supermint mayonnaise test***

**In the latest Supermint test, a versatile sauce, mayonnaise was examined by the National Food Chain Safety Office (NFCSO). The 22 products checked were once again broken down to their “atoms” by the experts. The presence of the plant toxin erucic acid and PAH contaminants, allergens and preservatives was investigated, among other things. The bottles sauces passed the test from a food safety point of view, however, the preservative content of two mayonnaise was slightly above the prescribed limit value.**

As is customary in the complex NFCSO tests, numerous laboratory tests have been carried out by the expert of the office in the case of bottles mayonnaises. What was alright in each case:

- moisture content,
- fat content,
- erucic acid (plant toxin) content,

- amount of omega-3 fatty acid on the label,
- vegetable oil composition,
- sorbic acid preservative content,
- EDTA antioxidant content,
- pH,
- presence of PAH contaminants,
- sulfur dioxide content.

It is reassuring that mayonnaise containing no mustard or eggs were really free from these ingredients. In addition, no traces of celery, considered to be an allergenic substance, were found in randomly selected products by the experts of NFCSO. The overall migration of the cap of four randomly selected mayonnaise bottles was also examined and they complied with the limit values set by the relevant EU regulation.

What was not alright:

The amount of preservatives in mayonnaise is regulated by a decree. In two of the 22 mayonnaise, the amount of benzoic acid, a preservative, slightly exceeded the prescribed limit value, and so authority proceedings were initiated against the responsible enterprises. These products could not be ranked in the popularity test either. In addition, there were some labeling errors as well.

Of the 22 mayonnaise, problems that led to the initiation of authority proceedings occurred in the case of three products: one of them had labeling deficiencies, while the other two had quality and labeling deficiencies. Because of the different milder labeling errors, warnings were issued to the food enterprises by the experts, and they have to submit an action plan to correct them. Because of the presence of a preservative in an amount exceeding the limit value, i.e., a quality defect, a food supervision fine totaling 300,000 HUF was imposed by the inspectors of NFCSO on the businesses concerned.

The products were again scored by expert and lay judges in the popularity test, using the blind taste method. The Supermint ranking of mayonnaise is based on the evaluation of appearance, color, smell and taste. Of the products tested, Univer mayonnaise was the most popular among the judges. Second was the products of Penny, while Reál mayonnaise finished third.

Further information, interesting tidbits and detailed test results are available on the NFCSO Supermint product test site: <http://szupermenta.hu/majonezek-teszteltunk/>