NOVEL FOODS

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Session: Nutrition challenges ahead
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„Meine Bemerkungen sind nicht zwangsläufig die offizielle Meinung der AGES bzw. Österreichs“

“My remarks do not necessarily reflect the official view of AGES or Austria”
Overview

- Responsibilities and networks
- Definition of novel foods (NF)
- New novel food regulation?
- Authorization of novel foods
- Examples of novel foods
- Contact

- ANNEX: Important Homepages, Information for NF (will be not presented! Just for your information)
Responsibilities in Austria

Assessment

Competent authority
AGES Company Structure 2012

1) Austrian Federal Office for Food Safety
2) Austrian Federal Office for Safety in Healthcare
Novel Food Networks

- BMG
- Institutes Of Food Analyses
- Market Authority
- Costums
- Codex
- University + Experts
- Federal Economic Chamber
- Consumers Organisation
- Federal Chamber Of Labour

Novel Food Working Group

European Food Safety Authority
Definition 1

A novel food is defined as a food or food ingredient which does not have a significant history of consumption within the EC before the 15th of May 1997 and which fall into the following specific categories: (Article 1, paragraph 2 without GMO- a) and b):

Foods and food ingredients,
Definition 2

c) with a new or intentionally modified primary molecular structure (e.g. fat replacers, Tagatose);

d) consisting of or isolated from micro-organisms, fungi or algae (e.g. oil rich in DHA from a microalgae);

e) foods and food ingredients consisting of or isolated from plants (e.g. Chia seed, Rapeseed Protein) and food ingredients isolated from animals (e.g. lipid extract from antarctic Krill Euphausia superba), except for foods and food ingredients obtained by traditional propagating or breeding practices and having a history of safe food use;
Definition 3

f) foods and food ingredients to which has been applied a production process not currently used, where that process gives rise to significant changes in the composition or structure of the foods or food ingredients which affect their nutritional value, metabolism or level of undesirable substances (e.g. UVC treated milk, nanotechnology)
Draft revision of novel foods regulation

- common authorisation procedure - EFSA;

- updated technical guidance and tools for preparing and submitting application

- Notification process for traditional food from 3rd countries with a "history of (safe) use";

- Emerging future technologies (nanotechnology);

- Whole Animals (Insects);

- Cloning
WW I - 100 Years of „Novel Foods“

Ersatz(lebens)mittel = Surrogat(e)  
= „Substitute good (food)“

Kathreiner- barley coffee factory in Munich

Maize germ oil
Overview of authorization procedures
Safety assessment of novel foods and novel food ingredients

- Foods commercialised legally in at least one Member State before the entry into force of the Regulation on Novel Foods on 15 May 1997, are on the EU market under the „principle of mutual recognition“.

- In order to ensure the highest level of protection of human health, novel foods must undergo a safety assessment („Community assessment“) before being placed on the EU market. Only those products considered to be safe for human consumption are authorised for marketing.

- Two kinds of authorisations: Notifications and Applications
D- Tagatose (authorized NF) (FSA)

- is lowering the blood sugar increasing effect compared to Saccharose (< GI)

- Calories: Tagatose = 1,5 kcal/g  
(Saccharose = 4,0 kcal/g)

- praebiotic

- Sweetness: Tagatose = 0,9  
(Saccharose = 1,0)

- Tagatose induces no Karies
DHA-rich algal oil (authorized)
Chiaseeds + Chiaoil (Salvia hispanica) (authorized NF)

Chia is an annual herbaceous plant. The seed is rich in omega-3 fatty acids.

Novel Protein Sources

Comprehensive Reviews in Food Science and Food Safety
Volume 12, Issue 6, pages 662-678, 15 OCT 2013 DOI: 10.1111/1541-4337.12032

Novel Foods, EFSA, MILANO, 15.10.2015, Riediger
Rapeseed protein (= Canola protein) (instead of Soja protein)

The labelling of any foodstuff containing rapeseed protein shall bear an easily visible and legible statement that the product containing ‘rapeseed protein’ as a food ingredient may cause allergic reaction to consumers who are allergic to mustard and products thereof. Where relevant, this statement shall appear in close proximity to the list of ingredients.
Recorded edible insect species, by country

Source: Centre of Geo information by Ron van Lammeren, Wageningen University, based on data compiled by Yde Jongema, 2015

version: 150518

recorded edible insect species in the world
Exotic animals

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UVC treated milk (not authorized until now in EC)

SurePureTM Technology: Pasteurization and treatment with UV-C Pulsed Light (200 – 310 nm).

As a result, the bacteria count is reduced, thus prolonging the shelf life of the milk from 12 to 21 days.

As a side effect the vitamin D3 content in the product is increased from the UVC-treatment. The higher the fat content of the milk, the higher the vitamin D3 content.
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http://www.ages.at/startseite/

https://www.verbrauchergesundheit.gv.at/Lebensmittel/neuartige_lm/neuartige_lm.html
ANNEX
Novel food

What is Novel Food?

Novel Food is defined as food that has not been consumed to a significant degree by humans in the EU prior to 1997, when the first Regulation on novel food came into force.

'Novel Food' can be newly developed, innovative food or food produced using new technologies and production processes as well as food traditionally eaten outside of the EU.

Examples of Novel Food include agriculture products from third countries (chia seeds), newly produced nutrients (synthetic zeaxanthin) or extracts from existing food (rapeseed protein).

Novel Food must be:

- Safe for consumers
- Properly labelled to not mislead consumers
Panel on dietetic products, nutrition and allergies [NDA]

- assessment of nutrition and health claims,
- setting of dietary reference values,
- guidance on how to establish food-based dietary guidelines,
- setting of tolerable upper intake levels for vitamins and minerals,
- advice on food allergens,
- advice on novel foods,
- assessment of ingredients to be used in infant formulas.
Advisory Committee on Novel Foods and Processes (ACNFP)

The Advisory Committee on Novel Foods and Processes (ACNFP) is a non-statutory, independent body of scientific experts that advises the Food Standards Agency on any matters relating to novel foods (including genetically modified foods) and novel processes (including food irradiation).

The Committee carries out safety assessments of any novel food or process submitted for approval under the EC novel food regulation. Until April 2004 the scope of this regulation included all foods produced using genetically modified organisms. However, GM foods are now subject to approval under a separate regulation. Approval of GM foods now involves centralised risk assessments, which are the responsibility of the European Food Safety Authority (EFSA).

Nevertheless, the Committee still has a role in advising the Food Standards Agency on GM foods – for example by contributing to EFSA’s risk assessments or by advising the Agency on other GM issues.

The ACNFP is supported in its work by a secretariat provided by the Food Standards Agency. The secretariat has scientific expertise that enables them to provide Members with comprehensive background information and briefing papers that inform the decision-making processes of the Committee. As well as formal meetings, the Committee organises workshops on specific topics related to its remit.

The reports of the ACNFP’s evaluations and the minutes of the Committee’s meetings are published on this site. The ACNFP also publishes an annual report which explains the work the Committee has undertaken during the reporting year and provides a full list of the Committee’s Members and any interests that they might have.

News

Views sought on chia seeds

A company has asked the FSA’s expert advisers on novel foods to consider an application for chia seeds to be approved for use in the European Union (EU) under the simplified approval procedure. Views are invited on the independent expert committee’s draft opinion.
Novel Food

The term "Novel Food" refers to novel foods and novel food ingredients which had not been used for human consumption on a significant degree before 15 May 1997 and which fall under one of the following categories:

- foods and food ingredients with a new or intentionally modified primary molecular structure;
- foods and food ingredients consisting of or isolated from microorganisms, fungi or algae;
- foods and food ingredients consisting of or isolated from plants and food ingredients isolated from animals (except for foods and food ingredients obtained by traditional propagating or breeding practices and having a history of safe food use);
- foods and food ingredients to which has been applied a production process not currently used, where that process gives rise to significant changes in the composition or structure of the foods or food ingredients which affect their nutritional value, metabolism or level of undesirable substances.

Examples of Novel Foods are fruit juices like nectarine, milk or vichy stock.
GERMANY

(1) http://www.bmel.de/DE/Ernaehrung/SichereLebensmittel/SpezielleLebensmittelUndZusaetze/NovelFood/novelFood_node.html

(2) http://www.bvl.bund.de/DE/01_Lebensmittel/03_Verbraucher/06_NovelFood/lm_NovelFood_node.html

(3) http://www.bfr.bund.de/de/novel_foods-215.html
AUSTRIA- Ministry of Health (BMG)

https://www.verbrauchergesundheit.gv.at/Lebensmittel/neuartige_lm/neuartige_lm.html

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Neuartige Lebensmittel


- Lebensmittel mit neuer oder geiler modifizierter primärer Makulmutations (z. B. synthetische, künstliche Fettverfeinerungsstoffe)
- Lebensmittel, die aus Mikroorganismen, Pilzen oder Algen bestehen oder aus diesen isoliert worden sind und beispielsweise Algenöl.
- Lebensmittel, die in Europa unbekannte und exotische Pflanzen und Pflanzenzüchtungen (z. B. Noni Saft) oder Lebensmittelzutaten, die aus Tieren isoliert wurden.
- Lebensmittel, die mit einem neuen, nicht üblichen Verfahren hergestellt wurden, dass eine Veränderung der Zusammensetzung oder Struktur bewirkt (z. B. hochdruckbehandelte Fruchtsaftextrakte).

Lebensmittelzubereitungsverfahren, Lebensmittelzubereitungsverfahren und Extraktionsabwässer sind zur Behandlung von Lebensmitteln sind keine neuartigen Lebensmittel, da sie gegebene gesetzliche Regelungen bestehen.

Beispiele für neuartige Lebensmittel und Lebensmittelzutaten

Neuartige Lebensmittel, die in der EU genormt sind, des beispielweise cholesterinreduzierende Phytoestrogen in Strichfetten, Noni Saft, und Trohathlete als süssende Lebensmittelzutat. Die Anfragen zum Süßzucker Stevia ubiquitana, zu Nahrungsmitteln und zu biologisch gereinigten Eier wurden abgelehnt.

Links

Informationen der Europäischen Kommission zu Novel Foods
Other EU MS

- http://www.eufic.org/article/de/expid/review-novel-foods/
Other countries

- http://www.fda.gov/Food/DietarySupplements/ucm109764.htm
This Food Standards Agency (FSA) checklist provides advice about online lists that you can check, as well as how to ask for information to be sent to you, which may help you to find out the novel status of a particular food.

« Human Consumption to a Significant Degree »
Information and Guidance Document

"Worldwide 30 food plants deliver 95% of human daily intake of plant food calories and around 300 other plant species are delivering the last 5%. These some 300 food plants are likely to be considered traditional in Europe, while the nearly 7000 other plant species traditionally used in the human food supply in other parts of the world may be considered novel in Europe. Novel food regulation is already in force in the European Community, Australia/New Zealand and in Canada where the novel plant foods need to go through a premarket assessment procedure."
This paper propose criteria and definitions to be used in determining novelty of a plant food and also propose a safety assessment approach for novel plant food with no or limited documented history of safe consumption.

A 2-step management procedure is recommended for a smooth introduction of fruits and vegetables; first to establish the novelty and second to define and commit resources for the safety assessment. The procedure builds upon the use of a worldwide network of global, regional, local and ethnobotanical positive lists for food plants to guide the decision on novelty at the first step and to enable the safety assessment at the second step."
Give guidance for differentiating Properties (Colouring Foods) from additive food colours. The concept could also be used for the evaluation of the novel food status of special extracts with calculation of the enrichment factor of interest.

- “Vitamin D mushrooms”
- “Greentea extract” (EGCG)
DG1: History of (safe) use and traditional foods from non-EU –countries
DG2: Data requirements and approach for anticipated intake
DG3: Key issues in absorption, distribution, metabolism, and excretion (ADME ) studies, toxicology and allergenicity
DG4: Data requirements to demonstrate safety of foods derived by nanotechnology
The United Nations Conference on Trade and Development (UNCTAD)


ISSUE PAPER

CONCERNING THE PROPOSED AMENDMENTS TO THE EUROPEAN

NOVEL FOODS REGULATION (EC) 258/97

WITH PARTICULAR REFERENCE TO

TRADITIONAL FOODS FROM DEVELOPING COUNTRIES

UNITED NATIONS
UNCTAD

November 2009
Plant Libra: Project + Links
http://www.plantlibra.eu/web/?q=node/63

PLANT food supplements: Levels of Intake, Benefit and Risk Assessment

Novel Foods, EFSA, MILANO, 15.10.2015, Riediger
European Food Safety Authority; Compendium of botanicals reported to contain naturally occurring substances of possible concern for human health when used in food and food supplements. EFSA Journal 2012;10(5):2663. [60 pp.].

EFSA Scientific Committee; Guidance on safety assessment of botanicals and botanical preparations intended for use as ingredients in food supplements, on request of EFSA. EFSA Journal 2009; 7(9):1249. [19 pp.].

Scientific Opinion on a Qualified Presumption of Safety (QPS) approach for the safety assessment of botanicals and botanical preparations
BOTANICALS-
National initiatives like BELFRIT

• BELGIUM, FRANCE, ITALY

• GERMANY
  http://www.bvl.bund.de/DE/01_Lebensmittel/03_Verbraucher/08_Stoffliste/lm_stoffliste_node.html

• AUSTRIA (Tea and tea like products)
  http://www.lebensmittelbuch.at/tee-und-teeaehnliche-erzeugnisse/

• ...

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