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Rice Food Safety & Other Facts



Newsletter
Nr. 22

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FOOD SAFETY

Rapid Alert System

- Two notifications sent by Austria concerning unauthorised genetically modified (KeFeng6; KMD1) rice vermicelli from China, via the Netherlands.
- In France withdrawal from the market of unauthorised genetically modified (KeFeng6, BT63) rice vermicelli from China.

Source: http://ec.europa.eu/food/food/rapidalert/rasff_portal_database_en.htm

GMO & BIOTECH

- EuropaBio (The European Association for Bioindustries) launched its new policy guide "Building a Biobased Economy for Europe in 2020" to help transform Europe's economy and society. The guide outlines how biotechnology has the capacity to significantly improve economic competitiveness, provide environmental advantages and create new, high-value jobs.

- Researchers from the Australian Centre for Plant Functional Genomics have inserted a gene in the rice plant, which improves rice resistance to saline stress through genetic modification, increasing the number of salt-transporting proteins in specific cells in the rice root. This resulted in salt being trapped in the root where it is less harmful and avoiding its effect to the vulnerable upper part of the plant. According to the researchers, the new GM technique they used is an efficient and robust biotechnological approach to help rice grow in soils with high salinity. The same technology can be used to improve the nutrient levels within rice grain.

Source: *Crop Biotech Update*

SCIENCE & RESEARCH

Rice yields are low in areas of low temperature. Previous studies have revealed that cold-induced male sterility (CIMS) often occur during the booting stage. A follow-up study was conducted in Japan to further map the location of cold tolerance trait (Ctb1). Ctb1 is composed of two genes, the first one is usually expressed in young panicles, while the other one is evident in the leaves and immature panicles. These two genes were cloned from a cold-tolerant variety, and introduced into a cold-sensitive variety, and a cold-sensitive line. The cold tolerance of the clones exposed to low temperature was measured by the degree of spikelet fertility. The findings proved that the first gene is responsible for cold tolerance. Moreover cold tolerance correlate with longer anther, and the cold-tolerant plants had greater anther length compared to cold-sensitive ones.

Source: *Crop Biotech Update*

OTHER NEWS

Approximately 12 million hectares of flood-prone areas in India are currently planted with **flood-tolerant rice varieties** at unexpected fast rates. This is due to swift multiplication of seeds, targeted dissemination, and linking of partners. These flood-tolerant rice varieties were developed and field-tested by the International Rice Research Institute (IRRI). The Institute encourages state governments to disseminate the seeds directly to farmers in target areas, so that they need not wait for 2-3 years for mass distribution. One of the rice varieties they are using is the Swarna-Sub1 line, the first submergence-tolerant, high yielding rice, released in India in August 2009. It incorporates the *SUB1* gene into the Indian mega-variety Swarna, making it endure up to 17 days of flood and still exhibiting the favorable characteristics of the original variety Swarna.

Source: *Crop Biotech Update*



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LAWS, STANDARDS & AGREEMENTS

Last July the EU Commission proposed to confer to Member States the freedom to allow, restrict or ban the cultivation of GMOs on part or all of their territory. The **proposal for revising Directive 2001/18/EC** aims to secure legal certainty for Member States when they decide on GMO cultivation on grounds other than those based on a scientific assessment of health and environmental risks. To this end, the Commission proposes to include a **new article (26b)**, which would be applicable to all GMOs that will be authorised for cultivation in the EU, either under Directive 2001/18/EC or under regulation (EC) N°1829/2003. At the same time, the EU authorisation system, based on scientific assessment of health and environmental risks will be maintained and further improved, thus ensuring the protection of consumers and the functioning of the internal market for GM and non-GM seeds, as well as for GM food and feed. The legislative proposal will be adopted through co-decision with the European Parliament and the Council.

Source: http://ec.europa.eu/food/food/biotechnology/index_en.htm

EVENTS & MEETINGS

- **"The Role of Science in Food Policy"** – Brussels, 29th Sept. The round-table will be held by the Belgian Presidency of the EU Council. This event will take place in Brussels in conjunction with EFSA's Management Board meeting. At the round table, international experts from the worlds of politics, science, economics and philosophy will debate the role of science in the public domain. They will particularly look at the idea of using science in setting policies and in decision making. In most cases, decisions to protect consumers from the risks associated with foodstuffs are based on scientific evidence. Sometimes there is uncertainty, which leads to the precautionary principle being applied. These concepts are enshrined in the European law – Regulation (EC) No 178/2002 – and in international standards. Current topics relating to the food chain will serve as examples or points of reference and the public will be invited to actively take part in the debate.

Source: www.efsa.europa.eu/en/events

- **"Nanotechnology In The Food Chain: Opportunities & Risks"** – Brussels, 24th November. Nanosciences and nanotechnologies are highly promising and rapidly emerging areas for research and industrial innovation. Due to the remarkable physicochemical properties of manufactured nanomaterials, a number of promising applications are emerging in the areas of agriculture and food production with the capacity to impact both the food industry and consumers, but also concerns arise about their potential adverse effect on human health and the environment. The scope of this international symposium is to present the current situation regarding the applications, opportunities and risks of nanotechnology in the food chain ("from farm to fork"), with a notice for the remaining gaps in knowledge, legislation and control.

Source: www.favv-afsc.fgov.be/nanotechnology