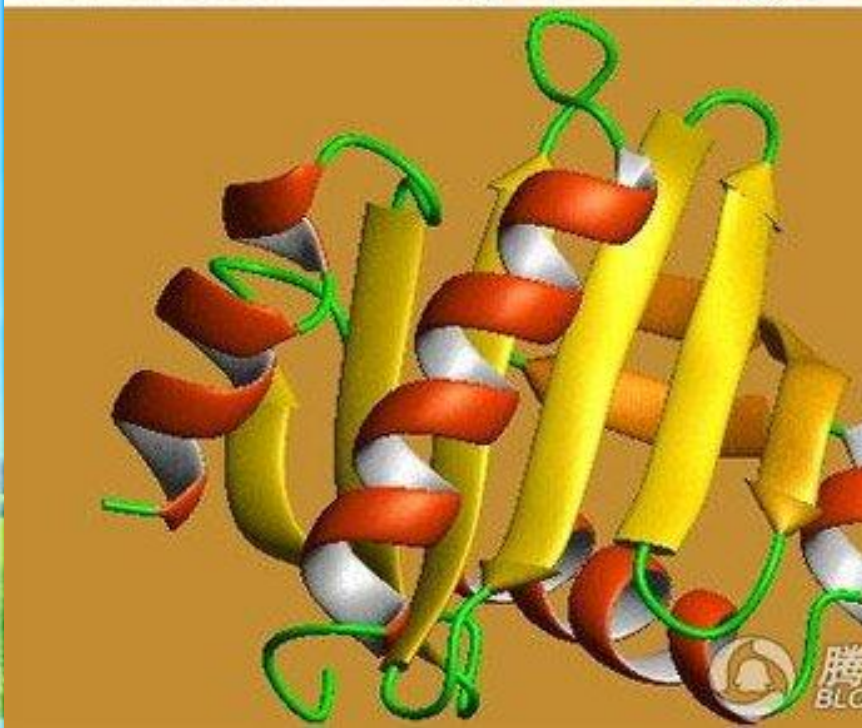


My several opinions on the security issues of GM foods

厦门大学 苏园园
2010级科学技术哲学专业

4/4/2011

cherry tomatos



What's genetically modified foods?

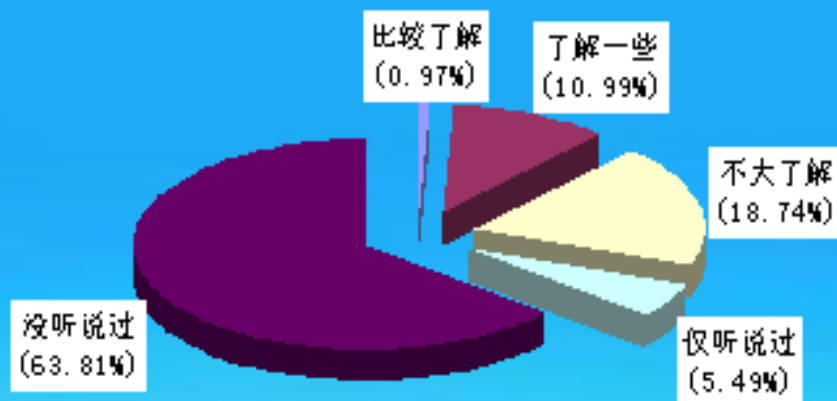


图1 市民对转基因食品的认知程度

Genetically modified foods are also known as genetically engineered foods or genetically modified food (referred to as GM food). General definition statement is:

through genetic engineering technology to one or more exogenous gene into a specific organism (animals, plants and microorganisms), the modified organism's genetic make it in the properties, nutritional quality, etc.

The desired target area changes to the human, and to effectively express the corresponding products (peptides or proteins).

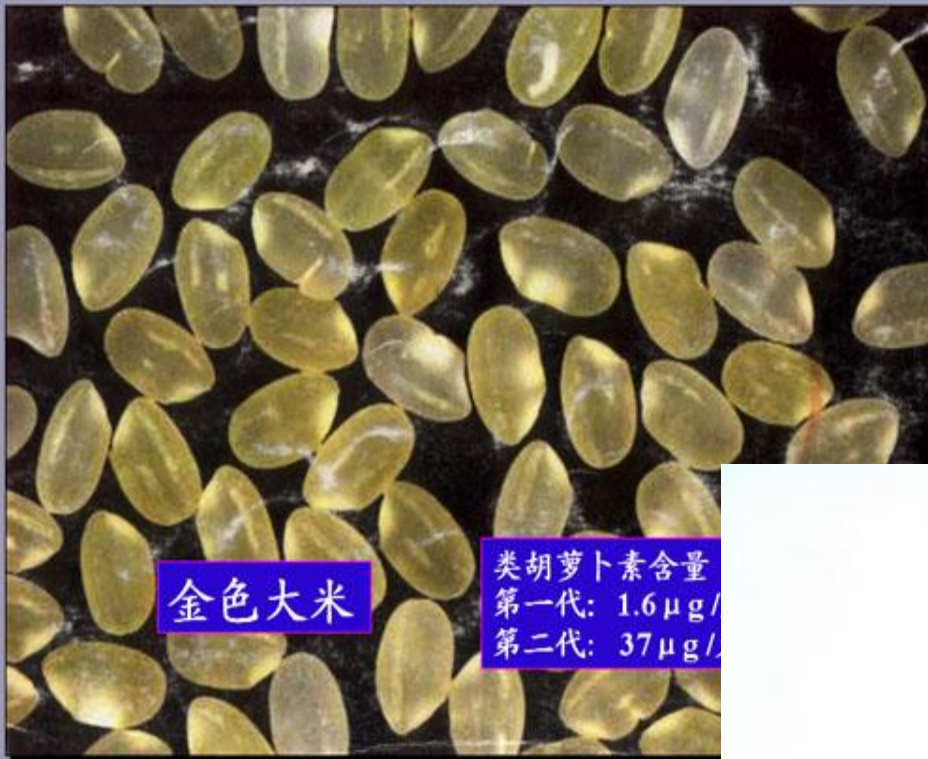
If such organisms directly as food or as raw materials for its production of food, called genetically modified food.

The development of genetically modified foods

In 1983 the world's first successful cultivation of transgenic plants, marking the improvement of human use of transgenic crops began. 1986, GM crops have been approved to enter field trials in 1994, the U.S. company Calgene Fresh cooked extension of cultivation of transgenic tomato was approved commercial production of GM crops worldwide in 2000 planted area of 44.2 million hm, a very rapid pace of development. According to incomplete statistics, at least in the genetic transformation of plants in 35 families and 120 species have been successful, the traits involved, including insect-resistant, anti-virus, anti-bacterial, anti-fungal, anti-herbicide, anti-stress and quality improvement and the growth and development regulation to improve the yield potential and so on.



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金色大米

类胡萝卜素含量
第一代: 1.6 $\mu\text{g}/\text{g}$
第二代: 37 $\mu\text{g}/\text{g}$



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精品网



Why do we develop GM foods?

Transgenic plants can increase crop yield per unit area production; to reduce production costs; by transgenic technology can enhance crop resistance to pests, anti-virus capabilities; improve storability of agricultural products to extend shelf life, increasing people's living standards to meet the needs of ; can greatly shorten the development time of crops; can get rid of season, climate, seasonal low-cost supplies; to break the boundaries of species, new species continue to cultivate and produce food for human health. Thus, genetically modified food has great social value and broad market prospects



People's concern

- 视频观察:
- http://v.youku.com/v_show/id_XMjQ1Mzc5NTMy.html



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- The general public suspicion of GM food in this food is the main focus there is toxicity, whether the cause of human health hazards
- This as GM crops and GM food ingredients made whether there are hazards on the human body, for example, with anti-pest, weed automatically the effect of GM crops, whether the different mechanism of conventional pesticides, toxic substances will not be "sent "to the consumer of the organic system? some genetically modified foods to resist bacterial invasion, does it make our in vivo and mutation of bacteria and immunity to all the antibiotics?

Against the potential risks of GM foods to take measures

- Adequate knowledge
- Labeling
- Developing a regulatory system for GM

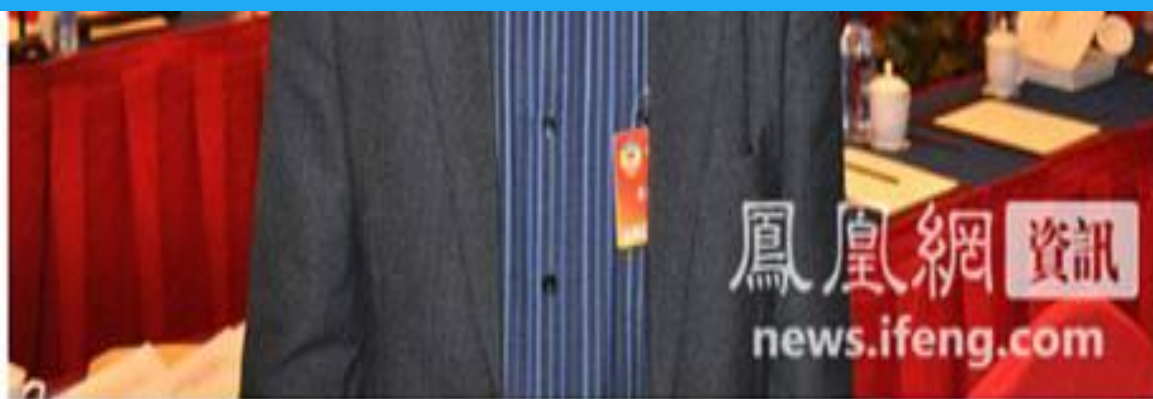
质量等级：一级

序号	标准性质	行业标准名称	标准号
1	SN	基因检验实验室技术要求	SN/T1193-2003
2	SN	植物及其产品中转基因成分检测 抽样和制样方法	SN/T1194-2003
3	SN	大豆中转基因成分的定性 PCR 检测方法	SN/T1195-2003
4	SN	玉米中转基因成分定性 PCR 检测方法	SN/T1196-2003
5	SN	油菜籽中转基因成分定性 PCR 检测方法	SN/T1197-2003
6	SN	马铃薯中转基因成分定性 PCR 检测方法	SN/T1198-2003
7	SN	棉花中转基因成分定性 PCR 检测方法	SN/T1199-2003
8	SN	烟草中转基因成分定性 PCR 检测方法	SN/T1200-2003
9	SN	植物性饲料中转基因植物成分定性 PCR 检测方法	SN/T1201-2003
10	SN	食品中转基因植物成分定性 PCR 检测方法	SN/T1202-2003
11	SN	食用油脂中转基因植物成分定性 PCR 检测方法	SN/T1203-2003
12	SN	植物及其加工产品中转基因成分实时荧光 PCR 定性检验方法	SN/T1204-2003
序号	标准性质	国家标准名称	标准号
1	GB	转基因产品检测 导则	即将发布
2	GB	转基因产品检测 实验室技术要求	即将发布
3	GB	转基因产品检测 取样制样方法	即将发布
4	GB	转基因产品检测 核酸提取纯化方法	即将发布
5	GB	转基因产品检测 核酸定性检测方法	即将发布
6	GB	转基因产品检测 核酸定量检测方法	即将发布
7	GB	转基因产品检测 基因芯片检测方法	即将发布
8	GB	转基因产品检测 蛋白质检测方法	即将发布

The experts' attitude: genetically modified foods are as safe as conventional food.

- genetically modified foods will not turn our genes
- GM food is non-toxic
- GM crops will not reduce biodiversity

Some people worry that genetically modified crops, the results of an alternative to traditional crop varieties will reduce the diversity of species, this possibility is clearly there. However, this possibility is not limited to genetically modified crops, improved varieties of plant species diversity of applications result in the reduction is a common phenomenon in agricultural production. And technically, genetically modified organisms is added to the individual gene, the added gene itself does not change biological diversity. It should be said, in the long run, GM crops will increase crop productivity, thereby using less farmland, less use of pesticides, to help protect biodiversity.



全国政协委员袁隆平接受访问

3月4日，全国政协委员袁隆平接受凤凰网和人民政协报联合访谈，在谈到转基因食品时，他自称愿意吃转基因的抗病抗虫食品，并称吃了后没出现问题。袁隆平还透露，他让自己儿子也吃转基因食品，也没有出现问题。

Fourth:my summary

Food to safety first. For this new type of genetically modified food in food, where they must have a correct understanding. With the rapid development of biotechnology, transgenic technology in food applications will be increasingly improved. Despite the existence of genetically modified foods some doubts, the advantages of genetically modified foods, or the performance of more and more significant, genetically modified food is a great potential of the industry. In the long run, the world's ever-increasing pressure of population growth, growing desertification, the global arable land is shrinking, the population increase and the demand for food have become increasingly prominent. Only the help of modern biotechnology, the use of genetic engineering to improve crops, we can be more adequate, quality food. For China, a large agricultural country, the development of genetically modified foods, will also maximize the material to meet the needs of the people, the realization of a harmonious society for the better draw a wonderful.

Thank you for your attention!

Bye bye!

4/4/2011