

Molecular Detection of the Unintended Effects of Transgenic Foods

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ABSTRACT The unintended effect of the foreign gene in transgenic plant foods is one of the main safety issues of the genetically modified crops, which may result in the changes of the contents of nutrients and metabolites, and even produce some new toxins. The unintended effects of the transgenic plants cannot be detected accurately by the targeted single compound analysis methods, mainly because the unintended effects are unpredictable. The non-targeted quantitative analysis technologies of proteomics and DNA microarray are the powerful methods to detect the unintended effects by comparing the differences of proteomics and gene expression between transgenic plants and their parent lines. The current status of the approaches applied to detecting the unintended effects of the foreign genes were reviewed.

Key words transgenic foods, unintended effect, proteomics, gene chip, detection

(上接第 77 页)

The Effect of Five Chemicals on the Growth of Mycelium and Production of Exopolysaccharide from *Schizophyllum Commune*

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ABSTRACT The effect of V B₁, NAA, Oleic acid, CMC and L-Glu on the growth of mycelium and production of exopolysaccharide was studied. The results showed that 0.5mg/L V_{B1}, 0.2mg/L NAA, 0.1% Oleic acid, 0.6% CMC, 1000μg/L L-Glu in the medium can remarkably enhance the growth of mycelium and production of exopolysaccharide. It is found that there is positive relativity between the mycelium and production of exopolysaccharide.

Key words schizophyllum commune, polysaccharide, biomass, mycelium

信息窗

日本一家公司开发芝麻乳加工新技术

日本一家公司开发出了一种新型芝麻乳加工新技术。该项技术是在芝麻中加入2%~4%的大豆乳,分离大豆蛋白或浓缩大豆蛋白等辅料,然后磨碎成糊状、加水、均质、过滤、除杂,再经高温瞬间杀菌制成。

芝麻营养价值高,但芝麻制成芝麻乳时,由于芝麻蛋白的水溶性差,使芝麻乳化液不稳定,在加热杀菌时乳化颗粒常常被破坏,极易出现分离、凝聚现象。新技术则克服原有加工技术的不足,制得的芝麻乳,不仅香味佳,质量好,且兼有芝麻与大豆双重营养,氨基酸效价更高。