



## Project 4.2.7

### Authentication of food samples with special reference to GM foods

**Are you worried that some of your ingredients may contain genetically modified (GM) material? Are you sure that your products can truthfully bear a "GM FREE" label?**

Many customers worry about the inclusion of GM materials in foods and seek assurance that the products they buy are indeed GM free. It is almost impossible to tell by physical examination if the product is genetically modified or not. In view of this, the Food Innovation programme

at Sheffield Hallam University has developed a quick and accurate testing service that can determine a product's GM credentials.

The testing laboratory at the University offers a highly sensitive and specific test using DNA technology to qualitatively identify GM soy and maize ingredients - if they are present.

Many companies use the fact that their products are GM free as part of their advertising strategy. If

challenged it would be a great advantage to show "due diligence" in that the products have been tested and shown not to contain GM material.

Whilst the current rapid test can only say if GM materials are present or not in the food, for most purposes this is all that is required. If GM material is detected, then more sophisticated tests to quantify the amount of GM material may be necessary.

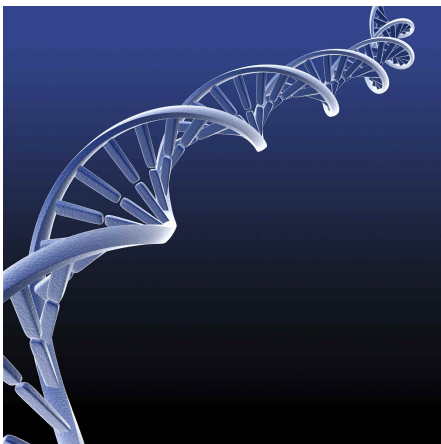


**Above:** It's almost impossible to identify crops of GM ingredients by physical examination.



In addition to the GM testing, the same laboratory can use DNA tests to authenticate that products are “gluten free”. ELISA tests can also be conducted to show if products are free of other recognised allergens such as egg protein, beta-lactoglobulin (from milk) and nuts such as peanuts, hazelnuts and almonds.

Make sure that what you claim for your product is indeed true and that you have the proof of test results if you are ever challenged.



**Above:** The test uses DNA technology to identify if GM materials are present.

### **The Food Innovation programme**

This project is part of the University’s £1.3m Food Innovation programme. Funded by the Higher Education Funding Council for England (HEFCE), the food innovation programme is designed to help companies respond to the business growth opportunities created by the healthy eating agenda.

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