

GMO & SPECIATION UNIT

NATIONAL PUBLIC HEALTH LABORATORY



MINISTRY OF HEALTH

GMO & SPECIATION UNIT

General Information

Genetically Modified Organism (GMO) can be defined as organisms in which the genetic material (DNA) has been altered in a way that does not occur naturally. It allows selected individual genes to be transferred from one organism into another, also between non-related species. GMOs are used in biological, pharmaceutical, medicine and agriculture. The use of GMOs as food and in food products is becoming more widespread.

Adverse effects:

1. Environmental hazards
~ cross pollination
2. Human health risks
~ allergenicity

Meat speciation is used to determine the source of meat instead of testing of Halal status in food based products.



GMO Testing Provided

Purpose:

1. To screen food and food components for evidence of genetic modification
2. To verify on approved events in Malaysia
3. Assurance can be provided on labelling of food

General Screening:

Screening of CaMV 35S promoter and nos 3' terminator ~ to screen the presence of GM-plant-derived DNA

Qualitative Analysis

Quantitative Analysis

Speciation Testing Provided

Purpose:

1. To determine the authenticity and Halal status in food

Qualitative Analysis



Sample Requirements

1. 1kg of raw soya & corn kernels and 3kg of raw potatoes
2. 500g of fresh meat
3. 2 packs of commercial packaging of semi processed and processed food