# WHY DO WE NEED TO LABEL GENETICALLY MODIFIED (GM) FOOD PRODUCTS?

## FACTS FOR SOUTH AFRICAN CONSUMERS

***GM crops have been growing in South Africa since 1997 and our supermarket shelves are stocked with a wide variety of genetically modified (GM) foods but most South Africans are ignorant about Genetic Modification and the GM content of the foods they consume.***

### A brief history of GM crops in South Africa

In 2004-2005 it was estimated that GM cotton, maize and Soya crops were grown on 300-500,000 hectares of South African land. Approximately 75-80% of cotton plantings, 6-20% of maize plantings, and 22-30% of soy plantings were said to be GM varieties.[i]

White maize is the staple food for millions of people in South Africa and the Southern African region.[ii] In addition to locally grown maize, South Africa has imported hundreds of thousands of metric tonnes of GM maize from Argentina and the United States, which although primarily used for animal feed, also enters the human food chain directly

GM cotton has been growing commercially in South Africa since 1997. Cottonseeds are crushed to produce cottonseed oil, which is used in cooking oil, shortening, salad dressing, and in snack foods such as crackers, biscuits and chips. The meal and hulls produced from cottonseeds are fed to livestock.

GM Soya was first planted for food and animal feed in 2001. Foodstuffs produced from soybeans include purified oil used in margarine, shortening, cooking and salad oils, tofu, Tempe, Soya sauce, and simulated milk and meat products. Soya is also used in a wide variety of processed foods, including ice cream, burgers, and fish paste.

GM material may be present in meat, milk and eggs derived from animals fed on GM animal feed.

### Consumer rights

Throughout the world, consumers have demanded their rights to information, safe food, and freedom of choice and forced governments to label GM foods. Even though labels do not make GM foods safe or acceptable, they do provide consumers with sufficient information to make an informed choice.

The global food system is becoming increasingly contaminated with GMOs because GM producing/exporting countries such as the US, Argentina and Canada, have refused to introduce appropriate systems to segregate GMOs from non-GMOs, from farm- to- plate.

As a result, it is difficult for importing countries to guarantee GM free foodstuff for their consumers. Hence, it has become the norm that a certain percentage of GM content in foods is *tolerated.* Products containing amounts beyond the agreed *'tolerance'* level must be labelled. Tolerance levels are also known as 'threshold levels.' Foodstuff containing GM content that exceeds the tolerance/ threshold level must be labelled. Globally, the European Union (EU) has set the lowest threshold level of 0.9.

## GM food labelling regulations and thresholds of other countries

| Country | Status of GM Labelling | % Threshold |
|---|---|---|
| Australia & New Zealand | Mandatory | 1.0% |
| Brazil | Mandatory | 1.0% |
| Canada | Voluntary | 5.0% |
| China | Mandatory | 1.0% |
| European Union | Mandatory | 0.9% |
| Indonesia | Mandatory | 5.0% |
| Israel | Mandatory | 0.9% |
| Japan | Mandatory | 5.0% |
| Philippines | Voluntary | N/A |
| Russia | Mandatory | 0.9% |
| Saudi Arabia | Mandatory | 1.0% |
| South Korea | Mandatory | 3.0% |
| Switzerland | Mandatory | 0.9% |
| Taiwan | Mandatory | 5.0% |
| Thailand | Mandatory | 5.0% |
| USA | Voluntary | 5.0% |

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## South Africa's labelling policy

In South Africa there is no mandatory labelling of GM foods that are currently grown, or imported into the country.

The South African government believes that GM foods are safe and mandatory labelling is unnecessary. The Department of Health says:

- Compulsory labelling is expensive and would lead to an increase in food prices;
- Diagnostic techniques to detect and identify transgenic (genetically modified) genetic material are expensive and unreliable;
- It is costly to segregate GM and non-GM foods; and
- Compulsory labelling is unrealistic because GMOs may increasingly appear in 30,000 products containing maize and soya ingredients.

However, there are no independent studies available to date that confirm these policy statements.

In 2004 the Minister of Agriculture and Land Affairs, Thoko Didiza said: "Consumers can enquire from the seller of the food whether it is genetically modified or not and determine if they wish to consume it."[iii] The government claims that independent safety assessments have been conducted yet there is no evidence to back this up

Ironically, even though consumers are kept in the dark about whether the food they buy is GM or not, South African legislation called the Genetically Modified Organisms Act,

holds consumers, and not producers, liable for any adverse effects that may result from consuming GM foods.

The *Regulations Relating to the Labelling of Foodstuffs Obtained Through Certain Techniques of Genetic Modification,* found in the *Foodstuffs, Cosmetics and Disinfectants Act*, stipulate that the only foodstuffs that need to be labelled are those that are significantly different in respect of their composition; nutritional value; mode of storage, preparation or cooking; allergenicity, and human or animal origin.

No GM foods in South Africa currently qualify for mandatory labelling, as the transferred genes in GM foods are from microbes and not animals or humans; are not known allergens, and do not confer improved or enhanced characteristics in terms of composition or nutritional value.

Labelling of GM foods in South Africa is thus entirely voluntary. South African companies may label products 'GM Free' but since no specific guidelines are given, food producers are left to interpret for themselves what this entails.

## GM food and South African supermarkets

In 2006, scientists from the GMO Testing Facility at the University of the Free State released a report giving the results of tests on 58 South African food products containing maize and Soya. The products were randomly selected from popular South African retail stores and health shops. The tests did not aim to establish the level of GM but whether or not GM material was present.

It was found that 76% of the 58 products tested were GM positive. Approximately 71% of products labelled "non-GM", "GMO-free" or "organic" were also found to contain GM. These findings make it possible for new regulations to be set that establish threshold levels for “non GM”, “GMO Free” and “organic'. The consequences of this may be that consumers are given more accurate information about the foodstuff they consume. However, it may also mean that truly organic and GM free-food will be compromised if arbitrary and non-scientific thresholds are established.

It is possible that South African food producers may have expediently exploited the gap in food labelling legislation. However, there has been no open, transparent and participatory debate about GM threshold levels in South Africa and the possible implications for consumers. The absence of appropriate labelling legislation provides a 'free for all' context for producers and creates over-dependence by retailers on guarantees provided by the producers regarding the GM and GM-Free status of the foodstuff.

## Results of tests conducted on randomly selected maize products

| Product | Producer | Description | Origin | GM/Organic claim | GM Results of Test |
|---|---|---|---|---|---|
| Amazon Corn Flakes | Woolworths (Nature's Food) | Cereal | USA | Organic | Positive |
| Corn Flakes (1) | Bokomo Foods | Cereal | SA | | Negative |
| Corn Flakes (2) | Kellogg Company | Cereal | SA | | Negative |
| Corn Flakes (3) | Woolworths | Cereal | | May be genetically modified | Negative |
| Ace | Tiger Food Brands | Maize Meal | SA | | Positive |
| Blue Bird | Sasko | Maize Meal | SA | | Positive |
| Impala | Premier Foods | Maize Meal | SA | | Positive |
| Iwisa | Premier Foods | Maize Meal | SA | | Positive |
| Knorr Pap Mix | Robertsons | Maize Meal | SA | | Positive |
| Maize Meal | Woolworths | Maize Meal | SA | May be genetically modified | Positive |
| Plaas Pap | Nola | Maize Meal | SA | | Positive |
| Pride | Pride Milling | Maize Meal | SA | | Positive |
| Summer Cream | Premier Foods | Maize Meal | SA | | Positive |
| White Maize Meal | Earth Products | Maize Meal | SA | GMO free/ Organic | Positive |
| White Mealie Meal | Nature's Choice | Maize Meal | SA | GMO free/ Organic | Positive- |
| White Star | Sasko | Maize Meal | SA | | Positive |
| Yellow Mealie Meal | Nature's Choice | Maize Meal | SA | | Positive |
| Maizena Corn Flour | Robertsons | Maize Starch | SA | | Negative |
| Sheridans Corn Flour | Retailer Brands | Maize Starch | SA | | Negative |
| Corn Thins Original | Real Foods | Rice Cakes | Australia | GMO free | Negative |
| Plan Rice Cakes | Woolworths | Rice Cakes | SA | | Negative |
| Golden Cloud | Tiger Food Brands | Self-raising Flour | SA | | Negative |
| Self-raising Flour | Woolworths | Maize Starch | SA | May be genetically modified | Positive |
| Snowflake | Premier Foods | Self-raising Flour | SA | | Positive |
| Old El Paso Taco Kit | General Mills | Taco Shells | Australia | | Positive |
| Baby Corn | Woolworths | Vegetable Maize | SA | | Negative |
| Organic Baby Corn | Woolworths | Vegetable Maize | Zambia | Organic | Negative |

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## Results of tests conducted on randomly selected Soya products

| Product | Producer | Description | Origin | GM/Organic claim | GM Results of Test |
|---|---|---|---|---|---|
| Soya Beans (1) | Health Connection Whole Foods | Soy Beans | SA | Not genetically modified | Negative |
| Soya Beans (2) | Nature's Choice | Soy Beans | SA | | Positive |
| Soya Crisps | Woolworths | Soy Crisps | SA | | Positive |
| Soya Flour | Health Connection Whole Foods | Soy Flour | SA | GMO free | Negative |
| Dew Fresh Soya Milk | Dew Fresh Products | Soy Milk | SA | | Positive |
| Nutribev | Hovennuts | Soy Milk | SA | | Positive |
| Simply Soy | SoyEx | Soy Milk | SA | | Positive |
| Soy Milk | Good Hope | Soy Milk | SA | Non-GM | Positive |
| Soya Milk(1) | Pick 'n Pay | Soy Milk | SA | | Positive |
| Soya Milk(2) | Woolworths | Soy Milk | SA | | Positive |
| Soysense | Woolworths | Soy Milk | USA | Organic | Positive |
| Cape Creamy | Nature's Choice | Soy Milk Powder | SA | GM free | Positive |
| Diabet-Mil | Cape Nutraceuticals | Soy Milk Powder | SA | GMO free | Positive |
| So Fresh | So Fresh International | Soy Milk Powder | SA | | Positive |
| Soya Milk Powder | Health Connection Whole Foods | Soy Milk Powder | SA | GMO free | Positive |
| SPP | Specialised Protein Powder | Soy Milk Powder | SA | Non-GM | Negative |
| Knorrox Soya Mince | Robertsons | Soy Mince | SA | | Positive |
| Royco Vita Mince | Master Foods South Africa | Soy Mince | SA | | Positive |
| Soya Chunks | Health Connection Whole Foods | Soy Mince | SA | GMO-free | Positive |
| Braai Flavour Sausages | Fry Group Foods | Soy Protein | SA | GMO free | Positive |
| Chic Burger | Soyatech | Soy Protein | SA | GMO free | Positive |
| Pure Vegetable Sausage | Sultan's | Soy Protein | SA | | Positive |
| Spiced Burgers | Fry Group Foods | Soy Protein | SA | GMO free | Positive |
| Spicy Soya Burger | Sun-C Foods | Soy Protein | SA | | Positive |
| Vegee Viennas | Penniken Health Food Manufacturers | Soy Protein | SA | | Positive |
| Vegetarian Chicken | Yuh-Der Industries | Soy Protein | SA | | Positive |
| Vegetarian Schnitzel | Woolworths | Soy Protein | SA | | Positive |
| Vegi Steak | Trident Foods | Soy Protein | SA | GMO free | Positive |
| Soya Drinking Yoghurt | Woolworths | Soy Yoghurt | SA | | Positive |
| Strawberry Yoghurt | Fairfield Dairy | Soy Yoghurt | SA | | Positive |

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The full impact of GMOs on human health may be far-reaching. Tests conducted by scientists on animals indicate that there are many possible impacts on human health ranging from allergies to terminal illnesses. South African regulations on labelling of GM foods thus place consumers at great risk. It is also possible that South Africa's labelling laws may be in violation of the South African Constitution.

## What can consumers do?

- **Boycott GM products!**
- **Speak to your local supermarket and demand truly GM free foods!**

## Write to the Ministers of Health, Agriculture, Trade and Industry, and Environment and Tourism and demand:

- **Mandatory labelling of GM food and feed, including animal products**
- **Compulsory traceability systems to trace GM products from farm- to-plate**
- **Segregation of GM seeds, foodstuffs and animal feed from their non-GM counter-parts**
- **Transparent and democratic public consultation with regard to the setting of threshold levels**
- **Public scrutiny of the GM safety assessments conducted by government**
- **Liability for harm caused by GMOs to be borne by the developer of the GMO.**

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The African Centre for Biosafety briefing paper, **Critical Analysis of South Africa's Labelling Regulations for Genetically Modified Foods** and a paper, by Viljoen, et al, **Detection of GMO in Food Products in South Africa: Implications for GMO Labelling**. Africa Journal of Biotechnology Vol. 5(2) pp. 73-82, 16 January 2006 were the major sources for this fact sheet

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