

## **Despite ignorance and uncertainties, many South Africans support biotechnology and genetically modified foods**

Despite lack of knowledge and much uncertainty about genetically modified foods, many South African consumers are currently still supportive of this new technology and willing to buy genetically modified foodstuffs that will provide certain benefits. There is evidence, however, that attitudes may change rapidly as people get access to more information in this field.

Two thirds of South Africans have never heard of the term "genetically modified foods", or are unsure what it is. The vast majority of consumers (more than 60%) don't know whether they are buying genetically modified foods when they shop at supermarkets in South Africa. Despite not fully understanding what genetically modified foods are, there seems to be considerable support amongst South Africans for the idea of using modern biotechnology as a way of improving the nutritional value and taste of food. Almost 40% agreed that the use of modern biotechnology to achieve these aims should be encouraged, while 42% were unsure and only 18% did not agree that this should be encouraged. Fewer than 20% of respondents did not support the transfer of genes to make crops more resistant to insects and drought, while about 40% agreed that this was useful and should be encouraged.

**These are some of the results of a survey of one thousand South Africans between the ages of 16 and 60 years, living in major metropolitan areas across the country. This survey was commissioned by the Foundation for Education, Science and Technology (FEST) during October 2001.**

The goal of this study was to determine public knowledge about and understanding of genetically modified foods, as well as to review public attitudes about the usefulness of the technology, its acceptability to consumers and whether or not they thought the technology should be encouraged.

Only 27,4% of South African respondents felt somewhat familiar with the term "genetically modified foods" and a mere 7% thought they knew what it was and could explain it to a friend. The educational level of the respondents made a big difference: More than 40% of respondents with a tertiary education was somewhat familiar with the term, while close to 20% of those with a tertiary education understood the term well enough to explain it to someone else.

While there is a need for public education about genetically modified foods in all population groups, this need is even bigger in black communities. Only 3.6% of Blacks indicated that they could

explain to someone else what genetically modified foods are, while only 16.4% was somewhat familiar. The majority of black respondents did not know genetically modified foods at all (50%) or were unsure what it was (30%).

South Africans also don't know whether they are buying or consuming genetically modified foods. More than 60% of respondents said they were not sure whether genetically modified foods were being sold in South African supermarkets. About half of all people with some tertiary education believe that genetically modified foods are sold in South African supermarkets.

Only 14% of the respondents were able to spot that it is not true that "ordinary tomatoes do not contain genes, but genetically modified tomatoes do." About the same number of people believed this was true (19.3%), while most people were not sure (66.2%). People with a degree fared somewhat better, but still only 27.8% of them knew that this statement was false. The results from a similar survey done during 1999 in 16 European countries show that Europeans have a far better basic knowledge of genes and genetics. Between 47% and 60% of respondents were able to identify this statement as false (see table below) compared to only 14% of South Africans.

**% Respondents who were correct in identifying the following statement as false: "Ordinary tomatoes do not contain genes, but genetically modified tomatoes do."**

Eurobarometer 52.1 - a 1999 survey of 16 EU countries / 1 000 respondents per country				South Africa
Netherlands	Sweden	Denmark	Finland	
60%	54%	51%	47%	14%

Only 20% of respondents were confident that one's own genes could not be altered as a result of eating genetically modified food; 16.2% thought this could happen, but the majority (63.8%) did not know. A comparison of the responses to this statement with a similar European study shows a much higher level of uncertainty among South Africans (see table below).

**Comparative responses to the statement: "If a person eats genetically modified fruit their genes could be modified as a result".**

	Europe*	South Africa
True	24%	16.2%
False	42%	20%
Don't know	34%	63.8%

\* Eurobarometer 52.1 - a 1999 survey of 16 EU countries / 1 000 respondents per country

There is considerable support amongst South Africans for the idea of using modern biotechnology as a way of improving the nutritional value and taste of foodstuffs. Almost 40% agreed that the use of modern biotechnology to achieve these aims should be encouraged, while 41.7% were unsure and only 18.4% did not agree that this should be encouraged.

The less educated people were, the higher their degree of uncertainty about their support for biotechnology in food production. Between 50 and 60% of all respondents who had some school education, but not completed grade 12, simply did not know whether or not to support the use of biotechnology in this way. Amongst people who had obtained degrees, 50% did support the use of biotechnology to produce improved foodstuffs, while 11% did not agree.

Similar responses were observed when respondents were asked whether they supported the technology of taking genes from plant species and transferring them into crops to make the crops more resistant to insects and drought. While about 40% of respondents agreed that this was a good idea, even more (42%) were unsure, while 16.7% disagreed.

Almost half of South African respondents would be willing to buy genetically modified foods for better taste. When asked if they would buy genetically modified fruit if it tasted better, close to 45% of respondents agreed; but again 34% was not sure and 21.2% said that they would not buy it for better taste. Only 22% of respondents in the Eurobarometer survey would be willing to buy genetically modified foods if they tasted better. People who have obtained a tertiary qualification have more definite views about this. The percentage of this group who were unsure dropped significantly (to 14.3%), but there was a more even split between those who would (43.3%) and would not (33.4%) buy genetically modified foods for better taste.

**Comparative percentages of people who would buy genetically modified fruit if it tasted better.**

	Europe*	South Africa
Agree	22%	44.8%
Disagree	66%	21.2%
Don't know	11%	34%

\* Eurobarometer 52.1 - a 1999 survey of 16 EU countries / 1 000 respondents per country

It would seem that not even the promise of healthier foods could persuade significantly more South Africans to eat genetically modified foods. When asked if they would eat genetically modified foods

that were healthier, containing more vitamins and less fat than other food, very similar responses were obtained compared to the question of eating genetically modified foods for better taste.

More than a third of all respondents indicated that they would be willing to pay more for foods that have NOT been genetically modified, but 42.7% of consumers have not made up their minds about this and indicated that they were not sure. Results from a similar survey in Europe shows that more than half of the people in Europe are willing to pay more for non-GM foods.

**Comparative percentages of people who are willing to pay more for NON-GM foods.**

	Europe*	South Africa
Agree	53%	32.6%
Disagree	36%	24.7%
Don't know	11%	42.7%

\* Eurobarometer 52.1 - a 1999 survey of 16 EU countries / 1 000 respondents per country

Almost half of all South African respondents felt that the government should regulate the production of genetically modified foods more than other foodstuffs. **More than 60% agreed that genetically modified foods should be specially and clearly labeled. Amongst respondents with degrees, the percentage of respondents who agreed with special labeling for genetically modified foods increased to 86.1%.**

There were no significant differences between men and women in the response to any of these questions.

Controversies over genetically engineered foods have raged for some time in First World countries, especially in the UK. Many countries had to deal with consumer resistance and boycotts of genetically modified foods. This debate is only starting to take root in South Africa. This survey shows that the public is currently ill informed and consequently very uncertain and somewhat indifferent about this topic. In the absence of balanced scientific information, there is a real danger that the public can rapidly turn against genetically modified foods, as happened in many countries in Europe.

The findings of this survey emphasise the need for more public dialogue about biotechnology and its applications. Any public communication campaign should be extremely carefully planned (and pre-tested) both in terms of its content and delivery. The UK experience has proven that public campaigns aiming to increase consumer acceptance of genetically modified foods, can easily

achieve exactly the opposite. The survey also confirms that consumer trust will depend on clear and consistent labeling of genetically modified foods – the consumer must always have the choice and the necessary information to make an informed choice.

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