

COMMENTS ON DRAFT ZAMBIAN STANDARD: LABELLING OF FOOD AND FEED THAT ARE PRODUCTS OF GENETIC ENGINEERING

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We have been asked by the Zambian civil society organisations to assist them in commenting on the Draft Zambian Standard Labeling of Food and Feed That Are Products of Genetic Engineering *Working Draft*, undated (hereinafter, referred to as 'the draft labeling standards", "the draft standards" and "the standards", interchangeably.)

Introduction

The Draft Labeling Standards are non-binding in the sense that they do not create legally binding obligations and responsibilities. As such, they are also not legally enforceable. The lack of teeth of the standards is not cured by the fact that the Zambian Bureau of Standards, a statutory body, produces the standards. However, the standards do fit well into the efforts underway in Zambia, regarding its establishment of a detection laboratory for genetically modified organisms (GMOs) and more generally, its proactive policy on biosafety on the African continent. According to Zambia's National Institute for Scientific and Industrial Research (NISIR), the new laboratory is being built to safeguard Zambian's health and maintain a sustainable environment.¹ The goal is also to have the new facility accredited as a regional and national referral laboratory. It is quite possible that the laboratory may qualify as one of the Biotechnology Centres of Excellence contemplated by the Science and Technology Secretariat established under the auspices of the New Partnership for Africa's Development (NEPAD), although no decision has yet been made by NEPAD's Science and Technology Steering Committee which institutions would form part of the Centre of Excellence networks.²

In the "Forward" to the standards, the rationale for the labeling standards is described as assisting consumers in making informed choices. This is to be welcomed. However, much work lies ahead.

Understandably, the standards are still work in progress, and much work lies ahead before it can approach a sound system that is able to also, perform a valuable biosafety function with respect to the traceability of GMOs from farm to place, risk management and monitoring health impact. It is hoped that open and transparent public consultation processes will take place in Zambia towards this objective. It is sincerely hoped that during the course of such consultation, debate and discussion will centre on the need for clarity especially on the establishment of thresholds for labeling.

¹ Zambia builds high-tech lab to detect GM food imports, 13 May 2005, Sci.Dev.Net <u>http://www.twnside.org.sg/title2/service199.htm</u>

² Personal communication, NEPAD 7 August 2005.

Overview of key provisions

Forward

As already mentioned, the standards contain a "Forward", which provides as follows: "in recognition of heightened interest regarding food and feed that are and are not products of genetic engineering, countries and international bodies have examined approaches for identifying such food and feed through labeling, to assist consumers in making informed choices."

It is suggested that the following be inserted <u>"national and regional legislation"</u> in place of the word "countries" so that it reads, "In recognition of heightened interest regarding food and feed and that are not products of genetic engineering, national and regional legislation and international bodies have examined approaches identifying such food and feed through labeling, to assist consumers in making informed choices."

Some thought may also be given to drafting a discreet set of provisions dealing with the purpose of the standards; taking particular account its non-binding nature.

Scope

The essence of what the standards apply to, are contained in clauses 1.1, 1.3 and 1.4 of the labeling standards. In regard to clause 1.1, it is suggested that the standards apply to products of genetic engineering, irrespective of whether <u>the DNA or protein</u> <u>produced by genetic engineering can be detected</u> instead of " irrespective of whether the food/feed or ingredient contains DNA or protein" The reason for this is because some food can contain DNA but it is so denatured that the detection of specific sequences is not possible. In fact, very little food contains no DNA or protein, e.g. sugar and highly refined oil.

In terms of paragraph 2, the standards are to apply to locally produced and imported food made available to Zambian consumers. "Food" is broadly defined (clause 2.5) to include any article manufactured, sold, or represented for use as food or drink for human beings, chewing gum, and any ingredient that may be mixed with food, for any purpose whatsoever. The standards also apply to labeling and advertising of food/feed sold <u>prepackaged or in bulk</u>, as well as to food prepared at the point of sale. The question that needs to be asked is, whether this covers comprehensively, the foodstuff that be genetically engineered? For instance, does it cover small baskets of GE potatoes? Does it sufficiently address the way in which food is sold in typical markets in Zambia, especially outside of the major city centres?

What can be labeled? What has been omitted?

The Zambian labeling standards are to apply principally to products of genetic engineering, such as GE potatoes, or food or feed products that consist of organisms that have undergone genetic engineering. It does not appear to apply to foodstuff

derived from GM fed animals, such as meat, milk and eggs derived from animals fed with GE animal feed. This should be revised in the light of the publication of an investigative report revealing parts of gene substance of GM Soya and maize being present in milk of animals fed on GM Soya and maize feed. The research report points out several possibilities as to how the gene segments may have found their way into the milk: via the GM feed fed to the animals, or as a result of the animals having breathed in the dust from the feed.³ At a public hearing in Britain concerning Chardon LL, a herbicide tolerant maize variety produced by Aventis, Professor Bob Orskov, Director of the International Feed Resources Unit in Aberdeen, Scotland, one of the country's leading experts on ruminant nutrition, stated that the scientific case put forward for GM maize was in adequate. He said " As a scientist, I would not drink milk from cows fed GM maize with the present state of knowledge."⁴

Permissible/impermissible labelling claims

For the sake of greater accuracy and precision, the labeling standards distinguish between food/feed products that consist of a single ingredient and those that consist of multiple ingredients (Single-ingredient food/feed and Multi-ingredient food/feed), the emphasis being on the labeling of the individual ingredients rather than on the product itself. In other words, it is not permissible to say "these chips are not a product of GE" but rather that "these chips are made from potatoes that are not the products of GE and made from Soya bean oil that is a product of GE." (Explanatory note B.2). All labeling claims are subject to the verification provisions set out in the standards.

Single ingredient food

Claims that a single ingredient food/feed is a product of GE can only be made when more than 99% of the source of the single ingredient is a product of genetic engineering. In other words, potatoes that have come from Farmer X's crop, of which more than 99% of the potatoes in that crop are GE then one can claim it is GE. If the crop is 99% or less GE, it cannot be claimed to be GE.

What does this mean? This is saying that the entire single source ingredient has to be GE before you can label it GE. This seems to be a dishonest standard. Even single ingredient food/feed are contaminated long before it reaches 99%.

Single ingredient food is derived from GE and non GE

Claims that a single ingredient food/feed is comprised of a mixture of products that are of, and are not of GE, is only permissible when 1 to 99% of the source of the single ingredient is a product of GE. In other words, where the source of the single ingredient is less then 1% a product of GE, it cannot be so labelled.

³ Greenpeace Press Release 22 June 2004. *Traces of Genetic Engineering detected in milk* <u>http://weblog.greenpeace.org/ge/archives/001471.htm.</u>

⁴ The Independent (London), October, 19, 2000 pg.8. "Inquiry Warned Over Milk From GM-Fed Cows."

What does this mean? In the case of the labelling of fried potatoes or chips, assuming the oil is GE and the potatoes are not, then, the final product the chips, can only be labelled GE, where the source of the oil is between 1 and 99% GE. If the oil is less then 1% derived from GE, then you cannot say that the chips are GE. If GE component is less than 1%, you can't call it GE. So, in this example, if the oil constitutes less than 1% of the chips, and the potatoes and non- GM, then the chips cannot be said to be a product of GE and non- GE.

It seems as if it is higher standard, but the combination is not being looked at, but the final product. These issues need to be clarified as they are confusing and deceptive in their interpretation. It is also not known how these percentages are to be related to the finished product.

"Not products of GE" (single ingredients)

Claims that a product for instance, maize is not a product of GE is only acceptable when it contains less than 1% of genetic engineering. If it contains more than 1%, then it cannot be labeled "not a product of GE."

What does this mean? This 1% threshold appears to be sanctioning/accepting contamination of up to 1%.

Multiple ingredient food/mixture of GE and non GE ingredients

Where the manufacturer wants to label these products as either GE or non-GE, it will have to do 2 things:

- (a) investigate the origin of all ingredients that each make up 1% or more of the total weight of the multi-ingredient food; and
- (b) that all known ingredients that are products of genetic engineering be identified in the list of ingredients. Claims cannot be made if 5% or more of the multi-ingredient food/feed as offered for sale consist of unverifiable origin.

What does this mean? In a box of Muesli/breakfast cereal, containing oats, barley, maize, wheat, oil, nuts, a food producer will have to investigate all the ingredients where the ingredients make up 1% or more of the total weight of the muesli. If the oil does not make up 1% of the total weight, it does not have to be investigated. The remaining ingredients that make up 1% or more and are identified to be products of GE, they must be listed in the list of ingredients on the muesli as products of GE. However, if the wheat makes up 5% or more and it cannot be verified that it is either GE or not GE, then the entire box cannot be labeled as GE.

At the same time, where a claim is made that specific ingredients are not products of GE is made on the front panel of the food/feed, the identified ingredient must contribute 5% of more to the weight of the multi-ingredient food/feed. It must also indicate that other ingredients are the products of GE if that is the case e.g. "this soup contains non-GE corn. It also contains GE ingredients, see ingredient panel for more information."

These labeling requirements appear to be erring on the side of GE instead of caution. The setting of these thresholds requires discussion and debate.

Controversial explanatory statements

The labeling standards have introduced some controversial provisions in that it allows the manufacturer to justify why genetic engineering was used, as a means of ensuring that labeling claims are truthful and not misleading. However, it is not clear when such explanatory statements will be required. Notwithstanding, clause 4.3.1. (d) allows a manufacturer to claim on a label for instance the following "this type of maize requires less pesticide use" and "our potatoes are genetically engineered to reduce our use of pesticide." These statements can be interpreted to function as "enhanced characteristic claims' and are meant to promote positive public perceptions of GE. The fact that GE crops resulted in reduced pesticide use or give agronomic benefit is heavily disputed. Indeed, there is a great deal of scientific evidence of the negative environmental and agronomic impact of GE crops. Will the Zambian government allow claims to be made that "this maize has been produced by GE and it resulted in the death of spiders?"

GE Free labelling (multiple ingredients)

As a general rule, the labeling standards do not allow for labeling claims to be made that a particular food or feed is GE free, or contains no genetically engineered ingredients, particularly when dealing with food or feed that consist of multiple ingredients as such food almost always contain unintentional or unverifiable food or ingredients. (General Requirements, clause 3.2.1). The exception thus to this rule, is that GE Free labeling will require verification that every ingredient used in the composition of the food or feed, as originating form a GE free source. In this event, the labeling standards require that an internationally accepted, validated testing method be used, where the results demonstrate an undetectable level of genetically engineered material. It must be noted, however, that the mere fact that genetic material is undetected does not mean it is not a product of GE.

Limitations on labelling

It is not permitted to label carrots as not being the product of GE where carrots are not GE anywhere in the world. However, it is acceptable to label it as follows "like all carrots in the world, these carrots are not the products of GE." These are similar to the provisions to be found in the South African labeling regulations.

Adventitious presence

The labeling standards address the issue of accidental inclusion of food during the planting, transportation, storage and milling, from a GE crop of less than 1% when making claims that a food and feed or food ingredient is not GE. In other words, the trigger for labeling the food as containing products that have been GE is 1%. The explanatory notes seem to accept that the less than 1% requirement means

food-chain-production stakeholders in order to stay below the 1% threshold, will have to target 0 % contact of GE product.

This percentage applies to both single ingredient foods and for individual ingredients in a multi-ingredient food like maize meal. This seems to mean that for every single ingredient in a multi-ingredient food can permit an accidental presence of less than 1%?

Verification

The labeling standards require that claims about food and feed are or are not the products of GE be verified, by inter alia, testing, detection methods, inspection and audit tracking. Proof of such verification is required including the keeping of documents for at least a period of 5 years from the date of the claim. Provisions are made for systems of verification and testing.