CCFL 2008

Comments From South Africa

Agenda Item 5

1. UNMET RELIGIOUS AND ETHICAL CONCERNS OF CHRISTIANS AND JEWS

A. Corruption of Divine Perfection

For Jews and Christians who accept the Torah/Bible's ultimate authority and see no higher truth, the perfection of God's creation is corrupted by the genetic violation of divinely created taxonomic families and physiologic capabilities that overcome natural physiological, reproductive or recombination barriers, not found in nature.

The Report of the GM/GE Labeling Working Group (Accra)[1] states in para 4, "… what is applicable in one country may not be appropriate in another." However, adherents of major religions, including Christians, are found in virtually every country and therefore, their scruples, religious and ethical concerns must be noted and respected through global mandatory labeling requirements, in order to avoid violating the Codex principle that mandatory labeling of foods derived from genetic engineering and biotechnology must take into account ethical and religious concerns.

Codex acknowledges that "…if a gene from an animal was put into plants (such as the arctic flounder gene inserted into tomatoes, or scorpion genes put into corn plants);

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[1] **CX/FL 08/36/8 REPORT OF THE WORKING GROUP ON THE LABELLING OF FOODS AND FOOD INGREDIENTS OBTAINED THROUGH CERTAIN TECHNIQUES OF GENETIC MODIFICATION / GENETIC ENGINEERING, Accra, Ghana, 28-30 January, 2008**

vegetarians would want to know such information so as to avoid such foods….” And “… If a gene from pigs was engineered into plants, kosher Jews and Halal Muslims would want to be made aware of that fact.” Similarly, Christians and Jews would like to know about any genetic manipulation for the same reasons.

The Report[2] notes, “the objectives of the Codex Intergovernmental Task Force on Foods Derived from Biotechnology includes consideration of such Other Legitimate Factors (OLFs): “To develop standards, guidelines or recommendations, as appropriate, for foods derived from biotechnology or traits introduced into foods by biotechnology, on the basis of scientific evidence, risk analysis and *having regard, where appropriate*, *to other legitimate factors relevant to the health of consumers and promotion of fair trade practices*” [italics added].

The religious concerns of Christians and Jews who are offended by GM/GE/Biotechnology “tampering” with the work of the Divine constitute an OLF and must be respected. The only possible way to accomplish this respect is to label all GM/GE/Biotech-derived foods worldwide.

B. Moral, Ethical Protection

Protection of the moral, ethical and religious rights of Christian and Jewish believers, assured by Codex, the WTO Declaration of Human Rights and other important international standards, makes labeling of GM/GE foods mandatory.

2. UNINTENDED CONSUMER HEALTH EFFECTS

A. Psychological and Emotional Health

In Accra, Norway pointed out that consumer health may be adversely affected by the impact of unlabeled GM/GE food and that

[2] [2] **CX/FL 08/36/8, Ibid**

unlabelled GM/GE food violates Codex' mandate to protect consumer health as defined by WHO: "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity".[3] The report notes, "…some consumers may experience strong ethical, religious, emotional or other objections for purchasing specific foods. These perceived risks may influence the[ir] health... These aspects of health should also be considered when the needs for new standards [on GM/GE labeling] are discussed."[4]

B. Unknown Effects of Consumption of GM/GE/Biotech Foods

Health effects of concern are multiple and varied. Focusing on just a few of the many serious health effects already known[5],[6],[7] renowned scientists Steinbrecher and Latham note,

"- If the antibiotic gene inserted into most GM crops were to transfer, it could create super diseases, resistant to antibiotics.

- If the gene that creates Bt -toxin in GM corn were to transfer, it might turn our intestinal flora into living pesticide factories.

- Animal studies show that DNA in food can travel into organs throughout the body, even into the fetus"[8]

Independent scientific investigation[9],[10], reveals numerous troubling possible health effects of short and long-term

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[3] **CX/FL 08/36/8, Ibid**

[4] **CX/FL 08/36/8, Ibid**

consumption of GM/GE/Biotech foods. These effects were either not known or not considered when the foods were allowed to enter the market based on incomplete studies or national legislation which does not require pre market safety evaluation (e.g., USA)[11].

For example,

- Spermicidal-containing corn ("maize" in South Africa, Central and South America), which results in permanent male sterility, developed with funds from the USDA,[12] is already in the world food chain. Without labeling, there is no way for men to protect their fertility.
- Laboratory research suggests strongly that negative immune, renal, GI and fertility consequences may result when pregnant animals consume GM/GE soy, potatoes, corn and other crops
- Enzyme transformation may occur in the GI tract so that genes responsible for glyphosate ("Roundup ©") resistance switch their function and produce glyphosate. The genetic material responsible for this transformation is then available

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[5] Ho MW, "GM ban long overdue. Dozens ill & five deaths in the Philippines". Science in Society 29, 26-27, 2006.

[6] Ho MW, "French experts very disturbed by health effects of Monsanto GM corn" GMWatch, 23 April 2004. www.gmwatch.org

[7] Ho MW, "More illnesses linked to Bt crops" Science in Society 30, 8-10, 2006.

[8] Ricarda A. Steinbrecher and Jonathan R. Latham, "Horizontal gene transfer from GM crops to unrelated organisms," GM Science Review Meeting of the Royal Society of Edinburgh on "GM Gene Flow: Scale and Consequences for Agriculture and the Environment," January 27, 2003

[9]Ho, Mae Wan, Making the World GM-Free and Sustainable, http://www.westonaprice.org/farming/gm-free-sustainable.html review article

[10] Pusztai A, Bardocz S and Ewen SWB. "Genetically modified foods: Potential human health effects". In Food Safety: Contaminants and Toxins, (J P F D'Mello ed.), Scottish Agricultural College, Edinburgh, CAB International, 2003.

[11] FDA's Policy for Foods Derived from New Plant Varieties, http://vm.cfsan.fda.gov/~lrd/biopolcy.html#policy (See also Appendix I)

[12] Epicyte, 2001 announced the development of genetically engineered corn which contained a spermicide which made the semen of men who ate it sterile. At the time Epicyte had a joint venture agreement with DuPont and Syngenta.

for incorporation into both somatic and bacterial cells in the consumer's body and gut.

C. Nutrient non-equivalence

Plants modified for nutritional or health benefits pose hazards identified by the Ad Hoc Committee on Biotechnology Report Appendix III (Alinorm 08/31/34).[13] Nutrients produced by GM/GE plants may not be bio-available and may be toxic anti-nutrients. This documents makes the point that nutrients produced by modified plants may not be bio-available, bio-equivalent and may be toxic anti nutrients.

The report notes that information on whether the consumption of the modified nutrient could result in adverse events is lacking, raising the possibility that these plants could be toxic. It further notes:

[13] Alinorm 08/31/34, Report of the Seventh Session of the Codex Ad Hoc Intergovernmental Task Force on Foods Derived from Biotechnology, Appendix III, Chiba, Japan, 24-28 September 2007

- Possible adverse nutritional effects as compared to consumption of the food that it is intended to replace
- Possible changes in bioavailability
- Plants modified for nutritional or health benefits result in food products that may be significantly different from their conventional counterparts making safety assessment a serious concern
- Uncharacterized forms of intended nutrients may be present which could pose health hazards
- More than one chemical form of the nutrient might be expressed in the food as a result of the modification and these may not be characterized from a nutrition perspective
-Concentration and chemical forms in which the nutrient is expressed are not necessarily controllable making food fortification based on these modified plants imprecise.

Para 5 of the Report of the CCFL Working Group in Accra, Ghana[14] notes that "There was agreement that labeling regimes are not a substitute for pre-market safety assessments. Several countries further noted that GM/GE foods undergo rigorous safety assessments before being allowed on the market." However, the United States, source of most GM seed stock and prepared and prepackaged food containing GM/GE components, pursues an official policy, based in the 1992 Executive Order of then-President George H. W. Bush, that genetically modified and unmodified foods are to be considered equivalent and no safety testing or special considerations are therefore needed or to be given by any US agency. "Substantial Equivalence" is a totally voluntary designation in the United States where safety assessment is not required before foods are placed in the general food supply.

The possible health hazards in GM/GE/Biotech foods lie far outside those that are normally associated with food and call

[14] Alinorm 08/31/34, Ibid

for clear labeling of genetically modified foods and foodstuffs.

D. Post Market Surveillance Impossible Without Labeling

Safety concerns are by no means laid to rest once a food reaches market readiness. For example, the prestigious (US) National Institutes of Science noted in its report on the safety concerns of GM foods, June, 2004, that workers processing celery produced through GM /biotech means developed severe rashes, especially when exposed to bright sunlight. The Precautionary Principle would require that careful attention to labeling be paid so that consumers and food handlers can make appropriate choices in their level of protection and avoidance when confronted with GM/Biotechnology-derived foods.[15] Lack of labeling makes this prudence and the application of the Precautionary Principle, a fundamental corner stone of Codex texts, impossible. Therefore, based on basic international agreements to which Codex adheres and the fundamental principals of Codex itself, it is both inconsistent and dangerous to adopt any principle except mandatory labeling of specific genetically modified organisms and products derived from GM/Biotechnology.

The same document states, "The most appropriate time for a safety assessment of new food is in the premarket period, although safety assessments may continue after market release, generally for products that are not equivalent to their conventional counterparts or that contain significantly altered nutritional and compositional profiles. Although post-market surveillance has not been used to evaluate any of the GM/GE/Biotechnology products currently on the market, it is a promising approach to use in monitoring potential

[15] National Institute of Science, Safety of Genetically Engineered Foods, Approaches to Assessing unintended Health Effects, July 2004

anticipated or unanticipated effects." [16] However, any policy which makes labeling of foods derived from GM/GE/Biotechnology anything other than universally mandatory makes any such post market surveillance completely impossible.

In the absence of either mandatory labeling or adequate knowledge about the health benefits of consuming GM/GE/Biotechnology, marketing unlabeled GM/GE/Biotechnology foods is, in essence, a human experiment conducted without informed consent. This violates established international norms such as the Nuremberg Code [17], which states as its first article,

"The voluntary consent of the human subject is absolutely essential. This means that the person involved should have legal capacity to give consent; should be so situated as to be able to exercise free power of choice, without the intervention of any element of force, fraud, deceit, duress, over-reaching, or other ulterior form of constraint or coercion; and should have sufficient knowledge and comprehension of the elements of the subject matter involved, as to enable him to make an understanding and enlightened decision. This latter element requires that, before the acceptance of an affirmative decision by the experimental subject, there should be made known to him the nature, duration, and purpose of the experiment; the method and means by which it is to be conducted; all inconveniences and hazards reasonably to be expected; and the effects upon his health or person, which may possibly come from his participation in the experiment." Persons consuming GM products must be given the opportunity to opt in our out of the experiment. Clearly labeling GM/GE/Biotech foods will have that effect.

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[16] National Institute of Science, loc. Cit.

[17] World Medical Association, Helsinki Guidelines, http://wma.net/e/policy /b3.htm 2003

Other world agreements concur that people may not be used for experimental subjects without informed consent.[18],[19],[20],[21],[22], as do national codes of conduct (such as the United States' Informed Consent rules.)[23]

The Bulletin of the World Health Organization's special article on the topic[24], *Beyond Informed Consent*, states, "Informed consent is the cornerstone of the ethical conduct of research". No informed consent opportunity is offered with unlabeled GM/GE/Biotech food and drink.

Codex Alimentarius Ad Hoc Committee on Biotechnology's document on nutritionally modified crops[25] states that nutrients produced by crops modified to produce them are not know to be safe, effective, bioidentical or bio-available. They state that in vitro and in vivo studies are inadequate to provide this information so the test animal should be human being.

These findings of the Ad Hoc Committee on Biotechnology make it clear that unless the agenda aim is to expose

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[18] The Nuremberg Code, http://www.hhs.gov/ohrp/references/nurcode.htm

[19] National Bioethics Advisory Committee, *Ethical and Policy Issues in International Research,* NBAC, Washington, DC, 2000

[20] Nuffield Council on Bioethics, *The Ethics of Research Related to Healthcare in Developing Countries,* London, Nuffield Council on Bioethics, 2002

[21] Council for International Organizations of Medical Sciences, *International Ethical Guidelines for Biomedical Research Involving Human Subjects,* Geneva, CIOMS, 2002

[22] European Union and European Parliament, Directive 2001/20/EC of the European Parliament and the Council of 4 April 2001, on *the approximation of the laws, regulations and administrative provisions of the Member States relating to the implementation of good clinical practice in the conduct of clinical trials on medical products for human use, European Union Guidelines*, 2001

[23] FOOD AND DRUG ADMINISTRATION, DEPARTMENT OF HEALTH AND HUMAN SERVICES PART 50--PROTECTION OF HUMAN SUBJECTS http://www.access.gpo.gov/nara/cfr/waisidx_00/21cfr50_00.html

[24] Bhutta, Z. A., *Beyond Informed Consent*, Bulletin of the World Health Organization 2004;82:771-777

[25] Alinorm 08/31/34, Appendix III,

everyone on the uncharacterized nutrients in modified plants, mandatory labeling is essential for consumer choice, health and well being

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