

A RESPONSE TO ISSUES AND VALUES
RELATED TO
GENETICALLY MODIFIED ORGANISMS

A Statement of the
Rural Life Committee of the
North Dakota Conference of Churches

The North Dakota Conference of Churches and its Rural Life Committee urges persons of faith, churches, public interest organizations and public bodies to engage in a process of discussion and discernment to consider the theological, ethical, and moral principles and perspectives, and religious teachings and their application to the issues of biotechnology and genetic modification of plant and animal life related to food and agricultural systems in this nation and the world.

Humankind was given responsibility for creation and its stewardship. Such responsibility must be considered in the context of the full time span of creation. It must be carried out with deep respect for life and the complexity of ecological relationships among varieties of life forms, humankind, and the environment. Such stewardship requires informed and careful discernment of the opportunities and limitations within the natural order of creation. It must uphold the sacredness of life and creation.

We recognize that the present scientific capability of transferring genetic materials among different species has created a wide range of scientific, social, political, legal, economic, and cultural questions, all of which are integrally interwoven with our ethical, moral and religious values. We believe that rigorous examination of these issues is required. Considering the import of these issues, it is also essential to involve the broad base of all the stakeholders within the world's food and agricultural systems, public policy makers and the scientific and faith communities in the examination of these issues.

The necessary, rigorous examination of the multiplicity of these issues within our society has not kept pace with the development and application of the technology related to genetically modified organisms. We must recognize from the outset that our quest for answers can only be successful if we know the full component of questions that need to be asked. We believe that we have only begun to understand what questions need to be raised. Our purpose is not to construct impossible hurdles, but to ensure that this technology is only developed and applied upon full examination of its implications for the common good of humankind and creation.

We are now involved in the manipulation of life at its most elemental level. Therefore the potentials for both benefit and advancement, and catastrophe and chaos are great. Out of respect for life and creation, we must proceed with disciplines of great caution, intentionality, and patience as we enter this era.

Therefore, we endorse the “Precautionary Principle” as a primary guide in the development, application and expansion of GMO biotechnology. This principle, formalized at the 1992 United Nations Conference on Environment and Development, emphasizes that the discipline of precaution be carefully exercised to avoid potential harm and unforeseen and unintended consequences. This principle requires that precaution should prevail whenever questions of human and environmental health are involved. It mandates restraint until cause and effect relationships are properly understood. It places the primary burden of demonstrating safety upon the developer. Thorough examination for the potential for harm is a prerequisite in determining and demonstrating such safety.

While we recognize that the “Precautionary Principle” is a different policy and regulatory regimen than is currently practiced in our nation, we believe that it is a discipline consistent with our Christian calling as stewards of creation and advocates of economic and social justice. We believe this principle is particularly applicable to the development of GMO biotechnology.

While “genetic engineering” implies a scientific precision comparable to the construction of a building or other inanimate tool or article, we recognize that plant and animal life is the result of a biological, not a manufacturing process. “Genetic engineering” seeks to establish specific and uniform genetic traits to achieve particular goals. In essence, it is an effort to industrialize biological processes to produce particular traits in agricultural commodities. At the same time the biological process involves the potential of geometric combinations and permutations in genetic structures and interrelationships. While there has been considerable progress in understanding and mapping the genetics of various species, there is much that is yet unknown and undiscovered within these scientific fields about these interrelationships.

Nature abhors uniformity. Through its evolutionary imperative, nature constantly moves towards diversity in its offspring as its means of adapting itself to the environment and securing survival of its species. Transgenic transfer (the introduction of genetic materials from one life form into another life form) brings a new variable into these biological processes within the natural environment. As stewards of creation we must consider how it will affect the evolution of life forms in the fullness of the life span of creation, not just within our limited lifetime.

One of the first questions of further expansion of GMO technology and use is the question of unintended genetic contamination of non-GMO varieties of a given life form and its biological relatives. Once introduced into the natural environment a genetically modified organism cannot be fully contained, nor can it be retrieved. Through the natural processes of reproduction, including pollination by wind, insects, and other means, the new organism interacts within its own and closely related species and with other life forms to produce offspring that may contain and pass on the GMO characteristic.

This is a particular problem for neighboring producers who wish to grow non-GMO varieties for particular markets. For example, organic producers in

certain geographic areas have given up growing certain commodities because they are unable to meet GMO-free certification standards. The capability of organic production to co-exist with GMO commodity production is an unanswered question.

Unintended genetic contamination also produces an abundance of legal questions. Since GMO traits are patented, who is liable and who has ownership when unintended genetic contamination occurs? Can a farmer save and grow seed of a genetically contaminated field? Must a farmer pay technology/patent fees upon the sale of that commodity?

Such questions as well as underlying social and cultural issues related to intellectual property rights, particularly in developing nations, require reappraisal of not only of the legal consequences of granting such intellectual property rights, but also the manner and the appropriateness of granting such rights through national and international law. The ethical and moral issues of the patenting of life forms is an unfinished discussion.

When an unauthorized or unintended GMO trait gets into the food system, who is liable and what is the liability? Such questions are just beginning to be considered in national legal systems, and they may have considerable impact on interrelated economic, social, and cultural outcomes.

The potential that a GMO commodity may become the dominant specie, either through economic or natural processes is a matter of deep concern. Within the natural process, the very characteristic that allows a variety to dominate a specie may also become the characteristic that makes it peculiarly susceptible to failure. The domination of any given variety (whether or not it contains a GMO trait) in an agricultural commodity is of concern in food systems since it runs counter to the long-term interests of preserving genetic diversity. The GMO component exacerbates this concern.

The potential that a GMO trait may be transferred to related unwanted species (weeds and regrowth) may make it more difficult to control such unwanted species. This is already being experienced. Just as insects evolve to become resistant to insecticides, unwanted plants will also evolve to become resistant. As such evolution occurs, it will require increased applications of the herbicide and/or new strategies of control.

We recognize that the primary beneficiary of GMO agricultural biotechnology have been the owners and distributors of that technology. The use of agricultural technologies has shifted the returns from agricultural production from the producer to the technology supplier with the result that the producer receives a smaller margin of the food dollar.

The historic pattern of economic benefit among producers in the use of agricultural technology has been that the first users of a technology receive a momentary competitive advantage over other producers. However, once the use

of that technology has become widespread this initial competitive advantage among producers disappears. Thus, those who have the financial base to be the first users are able to further expand and consolidate their resource base. Thus the technology becomes a mechanism of further concentration within agriculture.

The primary focus of GMO agricultural commodities has been to enhance characteristics for certain production methods of these commodities, primarily through herbicide resistance to allow for weed control, and toxicity to certain insect pests. Such characteristics have primarily facilitated the production methods of expansive, energy and capital intensive, monocultural, industrialized farming operations. The result is that such farms are able to enhance their industrialized production systems and externalize some of their production costs. While this does not necessarily increase the efficiency of overall production, it does serve to concentrate production and control of agricultural resources into fewer hands, resulting in larger farm operations and fewer farms.

This trend, in turn, has environmental, economic, social, and cultural consequences and implications for rural societies at a time in which public policy directions, especially within the faith community, have sought to encourage more sustainable, and more decentralized agricultural production farming and food systems. We are also deeply concerned by the increasing concentration among agricultural processors, suppliers, and food distribution systems. The structure of agriculture and the food system are critically important within the understandings of the church related to justice for humankind and creation.

While U.S. regulatory bodies have determined that GMO foods are “substantially equivalent” to conventional foods, there is little scientific knowledge or research on the long-term effects of GMO foods on human health and nutrition. Diet has become a major health issue and diet-related diseases lead the mortality rates in the United States. We are just beginning to fully understand and appreciate the health implications of our current food system. GMO foods add another dimension to the complexity of issues of diet and health. The lack of labeling requiring the identification of the presence of GMO materials in foods and the paucity of peer-reviewed scientific studies on the long-term safety of eating GMO foods makes it impossible for concerned persons to make informed decisions about their diet.

There are significant interrelationships between food, culture, and faith. The Christian community itself has a deep sacramental understanding of wheat and bread as the staff of life. Societies that have greater food and diet consciousness within their cultural heritage have expressed serious reservations about the presence of GMO's in food, and have either banned, or required labeling of food products. As consumers have become more aware and knowledgeable of GMO foods, there has been a corresponding increase in their concern over GMO materials in their food. Since these societies have been major purchasers of U.S. food production, the extensive presence of GMO commodities in the U.S. food system has reduced markets for producers of U.S. farm commodities. This has the effect of reducing U.S. market prices and

reinforcing the position of U.S. producers as residual suppliers in the world food market.

All of these concerns underline the need to exercise the precautionary principle in decision-making concerning GMO research, application and commercialization.

The North Dakota Conference of Churches and its Rural Life Committee supports a high priority for agricultural research for the development of production methodology and technology to provide greater opportunity for more sustainable, community-based agricultural and food systems that practice biodiversity. While recent GMO research and development has not served this research priority, we do not oppose GMO research or development in principle. We believe that free scientific inquiry into genetics and disciplined experimentation are appropriate ways to seek to understand creation. However, the use of such knowledge must be tempered in accordance with moral, ethical, and religious understandings.

As representatives of the church in this primary wheat production area, we believe the precautionary principle would require the application of a moratorium on the release of genetically modified wheat.

We would further recommended requirements to label foods containing GMO ingredients, a review and reconsideration of the issues of patenting life-forms, and a rigorous legislative and regulatory review of GMO commodities involving all the stakeholders.

Adopted as a statement of the Rural Life Committee of the North Dakota Conference of Churches and affirmed by the following member denominations: American Baptist Churches of the Dakotas; Northern Plains District of the Church of the Brethren, North Dakota Mission of the Church Of God (Anderson), Episcopal Diocese Of North Dakota, Eastern North Dakota Synod of the Evangelical Lutheran Church in America, Moravian Church (Northern Province, Western District) Northern Plains Presbytery of the Presbyterian Church, USA, Religious Society Of Friends (Quaker), Roman Catholic Diocese of Bismarck, Roman Catholic Diocese of Fargo, Northern Plains Conference of the United Church Of Christ, Dakotas Area of the United Methodist Church.