**The**

**Consumer's Choice Council**

# An Activist's Handbook
# On Genetically Modified Organisms and the WTO

**By**

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## Introduction

Genetic engineering allows scientists to reorder the basic building blocks of life to create new varieties of living organisms. The creators of these genetically modified organisms (GMOs) emphasize the potential of genetic engineering to benefit society by, for example, increasing crop yields or improving food quality. However, many scientists warn that GMOs could pose a threat to human health and the environment. More broadly, many people have expressed concern about the ethical and social implications of genetic engineering.

These risks and concerns have led many countries, particularly in Europe, to call for labeling of all products containing GMOs. These labeling schemes, however, are threatened by the international trading rules enforced by the World Trade Organization (WTO). Trade rules, which are designed to ensure that trade flows as smoothly as possible, may be used to block national efforts to enact strong GMO labeling laws.

Experience is already demonstrating that GMO labeling laws are vulnerable to challenge, based on the allegation that they are inconsistent with WTO rules. For example, the European Union's GMO labeling regulation is being challenged by the United States. By threatening to bring the European Union before the WTO's dispute settlement body, the United States is pressuring the European Union to review and weaken its GMO policy.

The purpose of this handbook is to help activists effectively protect the consumer's right to know about products that have been genetically modified from challenges based on the WTO trade rules. Unless groups representing the public interest become vocal participants in discussions about GMOs and the world trading system, it is likely that WTO rules will be interpreted according to industry preferences. To enable activists to participate more effectively in the GMO debate, this handbook examines the relationship between GMO labeling schemes and the relevant rules of the WTO. After considering possible conflicts between these trade rules and GMO labeling schemes, it suggests interpretations of WTO rules that allow GMO labeling schemes to operate without interference from the international trade system. This handbook shows activists how to argue that WTO rules are not an impediment to effective, mandatory GMO labeling.

## Background on GMO Product Labeling

### Scientific background

Genetically modified organisms are organisms whose genetic makeup has been directly altered by humans. An organism's biochemical, anatomical, physiological and, to some extent, behavioral traits are determined by genetic information encoded in dioxyribonucleic acid (DNA). DNA forms a hereditary code that is carried in each cell of each organism. The process of genetic modification involves identifying the portions of DNA that are responsible for a particular trait in one organism, extracting or copying these DNA sequences, and then introducing them into a different organism (either directly, or using "vectors," such as parts of a bacteria or viruses). The aim is to change the traits or functions of the recipient organism, and the result is a genetically modified organism (GMO).

Genetic engineering does not represent our first effort to influence the characteristics of living organisms. For thousands of years, humans have taken advantage of naturally occurring genetic variation within species to selectively breed organisms with desirable traits. Many of the characteristics of domestic animals and agricultural crops have been developed through such selective breeding. Humans have also influenced the reproductive behaviors or opportunities of closely related species where they might not breed in the wild because of reproductive or geographic barriers. Breeding, either naturally or through human influence, between distinct species is known as hybridization. Humans, for example, have bred two different species of the grass family, wheat and rye, resulting in hybrid offspring that have the ruggedness of rye and the high yield of wheat. However, because breeding can only take place between individuals of the same or closely related species, such breeding programs confront limits in the genetic combinations they can make and, therefore, the results they can achieve.

What is so revolutionary about genetic engineering is that it involves the transfer of genetic material between organisms that would never be able to breed in any natural or laboratory setting. Vast evolutionary boundaries can be crossed, such as those separating different phyla, or even different kingdoms.

Human beings have the ability to mix the genetic composition of organisms that have been on separate, distinct evolutionary paths for thousands or millions of years. For example, we have placed genetic information from humans into mice, and scorpion genes into corn. This genetic mixing is possible because the genetic information of all organisms is carried in the same DNA codes. If a DNA sequence in a pig is responsible for the production of a particular animal protein, that sequence can be introduced into a plant cell's DNA, and the plant cell will produce the same protein.

In medical and agricultural applications, genetic engineering has produced some successful results. Human DNA sequences have been transplanted into mice, causing the mice to produce components for human blood needed in medicine. Crop plant strains have been developed that carry genetic information from bacteria making plants resistant to herbicides. While these techniques promise many advances in agriculture and medicine, they also pose great ethical and biological dangers, risks, and uncertainties, as discussed in the next section.

## Risks and uncertainty associated with biotechnology

Because of its revolutionary nature, risk and uncertainty surround the process of genetic engineering and the resulting GMO product. The *process* of genetic engineering creates risk and uncertainty in a number of ways. By transferring new "regulatory" genetic information into the recipient organism, genetic engineering can destabilize the way DNA replicates, transcribes and recombines. Our understanding about the role of such regulatory information is incomplete, and so the alteration of the DNA sequence may have unintended and unexpected effects on the cellular processes of the recipient organism.

This uncertainty is compounded by the imprecise techniques used for inserting DNA. Although genetic engineering techniques are generally precise in isolating the desired DNA string in the original organism, they are imprecise when inserting it into the recipient organism. The random nature of insertion prevents scientists from knowing which of the organism's regulatory functions might be affected.

Uncertainty and risk associated with the process of engineering are also reflected in the resulting *genetically modified organism*. As a result of altered regulatory functions, GMOs may exhibit increased allergenic tendencies, toxicity, or altered nutritional value. They may also exhibit mutations, which are errors that can occur in the sequence or reading of the DNA within a cell. Altering regulatory functions may create new components or alter levels of existing components of an organism.

These risks are compounded when a GMO product is released into an uncontrolled environment. The interaction of GMOs with other complex biological systems, such as the human body or natural ecosystems, cannot, in many cases, be anticipated or fully tested before commercial release. The incredible complexity of even the simplest organism prevents scientists from knowing many important short- and long-term effects of genetic modification. While it is impossible to predict the long-term implications of releasing genetically manipulated plants or animals into the wild, grounds exist for proceeding with caution.

In one experiment, for example, scientists thought they had created an improved soil bacteria. But once in the ground, the new bacteria produced unexpected and negative results, causing the death of beneficial fungi. Even genetically modified agricultural products could create long-term problems. Food crops that are engineered to be resistant to pesticides and herbicides perpetuate reliance on these chemicals, promote environmentally harmful farming methods, and may encourage pests and insects to develop pesticide resistance. They also threaten to transfer resistance to wild relatives with implications for biodiversity and ecosystem integrity.

Long-term testing in complex environments will often be required before scientists can achieve even a basic understanding of the effects of releasing GMO products on agriculture, crop varieties, soil food-web communities, plants, aquatic systems and biodiversity.

## Reasons to label GMO products

The risks and uncertainties surrounding both the process of genetic modification and the resulting genetically modified products have prompted many countries to regulate the development and use of GMOs. Mandatory labeling of GMO products is one such regulatory response. These preliminary regulations are a prelude to what must become a much broader discussion of the role of genetic engineering in innovative, yet ethical and sustainable, human societies.

In the long run, we may decide that the risks associated with genetic engineering warrant a more comprehensive response, including a moratorium on some, or all, aspects of genetic engineering. In the meantime, labeling offers a partial, but important, response to some of the questions and concerns raised by genetic engineering. The benefits of labeling include:

***Consumer's right to know***

Probably the most important justification for GMO labeling is the consumer's right to know. GMO labeling allows consumers to choose products according to their ethical, religious, cultural and dietary preferences. Many consumers, citing religious and ethical convictions, prefer not to use products created by transferring genetic material across species boundaries. Vegetarians voice concern about products containing animal material (for example, tomatoes modified to include fish genes to improve their anti-freeze properties). And many consumers, concerned about the environmental risks associated with GMOs, prefer to use products that are not genetically modified. As in the case of ingredient and nutritional labeling, the consumer's right to know provides a compelling justification for the labeling of all GMO products.

***Education and raising awareness***

Consumer demands for information demonstrate the need for a broader and better-informed public debate about the benefits and risks of genetic engineering. The development of GMO products must be paralleled by a public discussion about the proper role of genetic engineering, and about the need for rules regulating its development. Some corporations would like to avoid such public discussion and force consumer acceptance by introducing GMO products without labels. Labeling provides an important tool for raising public awareness about the growing GMO phenomenon and ensuring an informed debate.

***Environmental protection and the precautionary approach***

Governments have a responsibility to take cost-effective measures to avert serious threats to the environment, even where scientific evidence is incomplete or inconclusive. The mounting evidence about GMO-related health and environmental risks provides a strong justification for mandatory GMO labeling. Indeed, some governments have held national referendums to ban genetic engineering, or have banned genetic engineering altogether. Compulsory labeling, while offering a less comprehensive response, may reduce risk by enabling governments to rapidly identify and remove a product from the market, or to take other remedial action. In this sense, labeling constitutes an essential component of a broader precautionary approach to the commercialization of GMO products – that is, an approach that ensures that reasonable efforts are made to protect society from risks posed by genetic engineering, even while scientific evidence about such risks is incomplete.

***Food safety***

Considered together with the reasons discussed above, the health risks associated with GMO food products justify labeling. Of course, food safety concerns should not be a prerequisite to effective compulsory labeling, as consumers have a right to know that products have been genetically modified, even in the absence of immediate health risks. Nevertheless, labeling informs consumers of potential changes in food composition, nutritional value, allergenic tendency and toxicity. While not all GMO products will exhibit such changes, and not all changes will harm consumers, genetic manipulation may make some foods unsafe or alter food nutritional quality. In particular, changes in food composition may trigger heightened responses in children, the elderly and people with allergies or specific dietary requirements.

### Types of GMO product labels

GMO product labels fall into two main categories. The first may be referred to as "positive" labeling, which informs consumers that a product *does* contain a GMO. These are government-sponsored compulsory labeling schemes that require *all* products in a particular class or exhibiting certain characteristics to carry the label. The European Union's compulsory labeling scheme for GMOs falls into this first category (See Box 1).

**Box 1**

***EU compulsory GMO labeling laws***

The European Union has adopted directives that make labeling mandatory for all products containing GMOs. GMOs are defined as any "organism in which the genetic material has been altered in a way that does not occur naturally by mating and/or natural recombination." Building on Council Directive *90/220/EEC*, which governs the deliberate release of GMOs into the environment, the European Commission enacted the *EU Novel Foods and Novel Food Ingredients Regulation 258/97*, which requires food to be labeled if:

- It differs from the equivalent familiar food due to a change in composition or nutritional value;
- Its consumption has health implications caused by allergens or other factors not present in the existing equivalent food;
- It creates ethical considerations (e.g., plants containing animal DNA); or
- It consists of, or contains, a GMO.

Food must be approved and labeled before it is released onto the market, and all food that consists of, or contains, GMOs must satisfy a detailed environmental risk and food safety assessment as a precondition to commercial release. The EU law applies equally to all GMO food, and does not discriminate on the basis of origin.

The second category consists of "negative" or "GMO-free" labels. These inform consumers that a product *does not* contain a GMO. They may be sponsored either by government or by a private organization, and are often voluntary; a producer will label a product if it believes the label will increase its profits or its market share. The organic labels administered by the International Federation of Organic Agricultural Movements (IFOAM), for example, fall into this category.

## Applying WTO Trade Rules to GMO Labeling

### *Overview of WTO*

Since its inception in 1995, the World Trade Organization has become one of the most important international organizations, providing the institutional setting for negotiating and enforcing global rules for international trade and economic activity. The WTO works to remove trade barriers, prevent discrimination among participants in the world trading system, and resolve specific trade disputes. As the volume of international trade increases, both in absolute terms and as a percentage of total production, the role of the WTO will continue to grow.

The world trading system is governed by a series of agreements, known as the WTO Agreements, that define the rights and obligations of WTO members and direct their policies toward economic liberalization. As well as governing trade in goods, these rules constrain the ways governments can regulate to protect health and the environment. They also impose disciplines on governments in areas as diverse as intellectual property, investment, services and government procurement.

The WTO also includes a procedure for settling disputes between parties. Judgements are made by a panel of specially-appointed trade experts, and are based on interpretations of the responsibilities of individual countries under the WTO Agreements. At least two of these agreements could apply in a WTO challenge of regulations establishing GMO product labeling:

- Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement); and
- Agreement on Technical Barriers to Trade (TBT Agreement).

In addition, the General Agreement on Tariffs and Trade, established in 1947 (GATT), and the Agreement on Government Procurement (signed by some, but not all WTO members) are relevant.

This handbook, however, focuses on the impact of the TBT and SPS Agreements, because they represent the most difficult WTO hurdles (See Box 2 for a general overview of these agreements). This handbook also focuses primarily on compulsory, rather than voluntary, GMO labeling schemes, as these are the most likely subjects of a WTO challenge.

**Box 2**

***The Agreement on Technical Barriers to Trade (TBT Agreement)*** aims to ensure that WTO Members do not use domestic regulations, standards, testing and certification procedures to create unnecessary obstacles to trade. The TBT Agreement was designed to prevent arbitrary standards from being used to protect domestic industries from foreign competition. It encourages countries to use international standards where appropriate. Such harmonization of standards is expected to facilitate trade by reducing the variety of different, sometimes incompatible, standards that producers must comply with to gain access to different markets. The TBT Agreement covers a wide range of domestic measures, including many taken to protect the environment. It divides these measures into two categories: "technical regulations" and "standards." Technical regulations are laws requiring mandatory compliance, including regulations regarding product specifications, labeling, packaging and other "technical" issues, as well as mandatory GMO labeling. Standards, by contrast, are non-binding rules, and may include voluntary labeling schemes. The TBT Agreement includes obligations relating to the preparation, adoption and application of technical regulations and standards, and the procedures for assessing whether products conform to these regulations and standards. Many of these obligations are set out in a Code of Good Conduct that may apply to private, non-governmental bodies.

***The Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement)*** deals with the application of food safety and animal and plant health regulations. While allowing countries to set their own standards, it requires that regulations be based on science and applied only to the extent necessary to protect human, animal, or plant life or health. By imposing science-based disciplines and requiring risk assessment, the SPS Agreement aims to prevent governments from using health and safety laws to limit international trade and protect domestic industries. The SPS Agreement is designed to prevent national laws that regulate food quality and the spread of disease and pests from unduly restricting international trade. It contains three primary disciplines. It requires national SPS measures that exceed international standards to be based on risk assessment and scientific evidence. It also requires that in cases where an acceptable level of risk can be achieved in various ways, governments must choose the regulatory alternative that meets health objectives in the least trade restrictive way possible. In addition to these obligations, the SPS Agreement encourages Members to recognize other Members' sanitary and phytosanitary measures as equivalent when it can be shown that these measures achieve a comparable level of health protection.

**Legal uncertainty exists as to whether the TBT and/or the SPS Agreement applies to GMO labeling**

A WTO panel might examine mandatory GMO labeling under the TBT Agreement, the SPS Agreement, or both. Uncertainty about which agreement applies arises from a somewhat arbitrary division made between these agreements; laws meant to deal with certain health concerns are considered under the SPS Agreement, while other kinds of regulations are covered by the TBT Agreement. In many cases this division is clear-cut, but where measures, such as GMO labels, can be characterized as responding to either SPS (health) concerns or broader non-SPS (ethical, religious, consumer's right to know) concerns, or both, then determining which agreement applies is more difficult.

The TBT Agreement states that its provisions "do not apply to sanitary and phytosanitary measures as defined in Annex A [of the SPS Agreement]."[1] This statement appears to defer to the SPS Agreement in cases where the kinds of health concerns covered by the SPS Agreement provide the predominant basis for the measure. However, the SPS Agreement provides that "[n]othing in this Agreement shall affect the rights of Members under the [TBT Agreement] with respect to measures not within the scope of this Agreement. "[2] This statement, in turn, suggests that the SPS Agreement should not be interpreted or applied to restrict a country's right under the TBT Agreement to take measures that do not fall within the SPS Agreement, but instead is designed to promote other objectives, such as respecting the consumer's right to know about the make-up of the products she buys, or ethical or religious convictions. Clearly, the relationship between these agreements is complex. However, as argued below, the better view is that, where consumer's right to know considerations are the primary basis for the measure, the less restrictive TBT Agreement would be the relevant rule.

Deciding which agreement applies is of practical significance, as a country challenging a GMO labeling scheme is likely to prefer the stricter, science-based SPS rules to the more flexible TBT requirements. A country may thus argue either that the two agreements apply concurrently, and the requirements of both must be satisfied, or that the SPS Agreement applies and thus trumps the TBT Agreement.

However, these arguments can be disputed by an individual well-informed about the WTO Agreements in question. The following sections of this handbook will present valid arguments for why the TBT Agreement, not the SPS Agreement, should govern the labeling of GMO products, as well as for why GMO labeling could be found to comply with even the SPS Agreement.

**The TBT Agreement, not the SPS Agreement, should be applied to GMO labeling**

While controversy exists (as explained above), a strong argument can be made that the TBT Agreement, not the SPS Agreement, applies to GMO labeling.[3] Legal and policy arguments support this position:

- Applying the TBT Agreement is better policy; the SPS Agreement's narrow focus on science and risk assessment render it inappropriate to govern GMO labeling schemes that are motivated primarily by non-food-safety-related factors. Indeed, many of the SPS Agreement's provisions cannot sensibly be applied to labeling schemes;
- As a legal matter, almost all labeling falls under the scope of the TBT Agreement, which explicitly covers "packaging, marking or labeling requirements as they apply to a product,

process or production method."[4] By contrast, the SPS Agreement seems only to cover labeling that is "directly related" to food safety;[5] and

- GMO labels should not be characterized as "directly related" to food safety. The primary justifications for GMO labeling include non-food-safety, consumer's right to know considerations.[6] Although food safety may provide a partial justification, GMO labeling can be wholly justified on the basis of non-food-safety-related considerations. Thus, the TBT, not the SPS Agreement, should apply.

**GMO labeling schemes - including compulsory labeling - are consistent with the TBT Agreement's two main obligations**

The TBT Agreement commits WTO Members to two main obligations: (1) the "non-discrimination" obligation; and, (2) the obligation to ensure that measures are "not more trade restrictive than necessary" (See Box 3).

**Box 3**

***The TBT "non-discrimination" obligation***
Article 2.1 states: "Members shall ensure that in respect of technical regulations, products imported from the territory of any Member shall be accorded treatment no less favorable than that accorded to like products of national origin and to like products originating in any other country."

***The TBT "not more trade restrictive than necessary" obligation***
Article 2.2 states: "Members shall ensure that technical regulations are not prepared, adopted or applied with a view to or with the effect of creating unnecessary obstacles to international trade. For this purpose, technical regulations shall not be more trade-restrictive than necessary to fulfill a legitimate objective, taking account of the risks non-fulfillment would create. Such legitimate objectives are, *inter alia:* national security requirements; the prevention of deceptive practices; protection of human health or safety, animal or plant life or health, or the environment."

***GMO labels meet the TBT non-discrimination obligation because they do not discriminate between "like products"***

The TBT non-discrimination obligation has two parts: "most favored nation" (MFN) and "national treatment." The MFN obligation prohibits Members from playing favorites between their trading partners; products of one trading partner must be given the same treatment as *like* products of another trading partner. The national treatment obligation, in turn, prohibits Members from favoring domestic producers; imported products must be given the same treatment as *like* products produced by domestic producers.

It can be seen from these obligations that the meaning of the term *like products* is important. Where products are *like* they must be given the same treatment. If a country gives *like* products different treatment, then they would fall foul of the non-discrimination obligations. It follows, then, that a country challenging another country's GMO labeling scheme will argue that GMO and non-GMO products are *like* products. Consequently, a compulsory labeling scheme that requires the labeling of *only* GMO products, so the argument goes, is discriminatory, WTO inconsistent and must be withdrawn.

To support the argument that GMO and non-GMO products are *like*, a challenging country will argue that the WTO should use the principle of "substantial equivalence," which compares only

selected characteristics of genetically modified food to corresponding non-genetically modified food. According to the logic of "substantial equivalence," if a genetically modified food is equivalent to a traditional food in the characteristics that are important to the consumer—composition, flavor, and texture—then it can also be presumed not to present new safety or nutritional concerns. The "substantial equivalence" test thus sets a low threshold for determining when GMO and non-GMO products are similar.

This test has been vigorously promoted by GMO exporting countries and companies, who make the contradictory arguments that GMO products are *like* when it comes to avoiding (and undermining) labeling requirements, but that they are somehow different, novel and innovative when it comes to securing lucrative patent protection. Fortunately, the substantial equivalence test has not yet become an international standard. The dangers of this test for GMO labeling schemes are discussed in more detail below in the section discussing the role of international standards at the WTO.

Other tests could be applied more appropriately to determine whether GMO and non-GMO products are *like*. The traditional WTO test for determining the *likeness* of products looks at: 1) consumers' tastes and habits; 2) the products' physical characteristics and end uses; and 3) the products' properties, nature and qualities.[7] The following arguments can be offered to demonstrate that GMO and non-GMO products are *not* like products according to the requirements of these tests:

- Consumers' *tastes and habits* treat GMO products as *unlike* their non-GMO counterparts. Consumer polls consistently demonstrate this. In the United States, for example, a 1997 industry-sponsored poll determined that 93% of consumers want genetically modified food to be labeled.[8] Support for GMO labeling indicates that consumers consider GMO and non-GMO products to be *unlike*;
- GMO and non-GMO products are *physically different*. GMO products contain genetic information and proteins that do not exist in their natural counterparts. Indeed, the process of genetic modification is specifically designed to insert *new* genetic material into an organism to produce *different* physical characteristics. Where it is difficult at the border of the importing country to establish these physical differences, the process by which the product was produced (in trade jargon, the "product-related production and process method") may generally be used under WTO law as a proxy; and
- The full extent to which GMO and non-GMO products' *properties, nature and qualities* differ has not yet been established. Indeed, an important reason why consumers want to know whether a product has been genetically engineered is because GMO products have not yet been proven unequivocally safe. In some cases genetic engineering may cause unanticipated side effects, introducing allergens and toxins into food or changing the food's nutritional value. These new qualities may also confer traits that make the organism destructive or invasive in natural ecosystems.

In sum, the better argument is that products containing GMOs are, in important respects, *unlike* their non-GMO counterparts, and, therefore, the TBT's non-discrimination obligations do not apply.

### *GMO labeling is not "more trade-restrictive than necessary"*

The second major obligation under the TBT Agreement requires Members to avoid creating "unnecessary obstacles" to international trade, meaning that their labeling laws must be "not more

trade restrictive than necessary" to protect "legitimate objectives," which include human health or safety, animal or plant life or health, or the environment.

The meaning of these terms has not been authoritatively determined in the context of the TBT Agreement. A country challenging another country's GMO labeling scheme would likely argue that compulsory labeling is "more trade restrictive than necessary" in promoting consumer information and ensuring public health. The following arguments refute this position:

- The standard for "not more trade restrictive than necessary" should be interpreted liberally: the WTO should defer to national decisions about how to achieve important domestic policy goals. Such an approach is necessary to ensure that the TBT Agreement does not elevate trade policy objectives above other legitimate objectives (such as protecting the consumer's right to know about the products that she is buying) or unduly restrain governments from enacting regulations aimed at protecting citizens.[9]
- Compulsory GMO labeling is an effective, yet nonrestrictive, way to achieve the legitimate objectives of raising public awareness and protecting a consumer's right to know about the products she buys. Although voluntary labeling may effectively provide some consumers with some information, it cannot realistically be considered a "less trade restrictive" way of ensuring that consumers have the ability to determine whether a product contains a GMO. At the very least, in order to preserve consumer choice, labels must inform consumers whether or not a product has been genetically modified. Voluntary labeling for products that do not contain GMOs will not achieve the same objective as compulsory labeling schemes, as consumers will still be unable to determine which unlabelled products contain GMOs.

### GMO labeling and the SPS Agreement

Above, we argued that the SPS Agreement does not apply to GMO labeling. However, in the event a WTO panel decides that a GMO labeling scheme (or some aspects of one) does fall within the scope of the SPS Agreement, the arguments set out below defend GMO labeling.

#### *Risk assessment and scientific evidence*

The SPS Agreement requires WTO Members to base their SPS measures on a risk assessment and on available scientific evidence.

GMO labeling distinguishes between products that are *different*, that is, between food that has been genetically modified and food that has not been subject to such manipulation. As long as a regulation treats locally produced food in the same way that it treats imported food (that is, as long as GMO labeling requirements are imposed on all food products equally without regard to national origin), a WTO panel would have difficulty characterizing compulsory GMO labeling as a "disguised restriction on international trade."

## International Standards Could Change the Status of GMO Labeling Schemes Under WTO Rules

As the forgoing discussion has demonstrated, regulations requiring the labeling of products containing GMOs should be considered consistent with WTO rules. WTO consistency, however, could be affected by international GMO-related standards, as these form the benchmarks against which the WTO will test national laws under both the TBT and the SPS Agreements.

The TBT Agreement requires international standards to be used "as a basis for" national laws. Laws that *are* based on international standards are presumed not to create "unnecessary obstacles to trade." This presumption does not apply to measures that *exceed* international standards. The TBT Agreement further states that governments *must* use international standards as a basis for their national laws except where those standards would be "ineffective or inappropriate" to fulfill the relevant "legitimate objective." Similarly, the SPS Agreement requires measures to be "based on" international standards. "Based on" requires a rational relationship between the measure and the standard, without requiring the measure to achieve the same level of SPS protection as the international standard.[11] Members may deviate from international standards where there is a scientific justification or where they have determined a need for a higher level of protection than afforded by the international standard. "Sanitary or phytosanitary measures which conform to international standards, guidelines or recommendations shall be deemed to be necessary to protect human, animal or plant life or health, and presumed to be consistent with the relevant provisions of [the SPS Agreement]."[12] Once again, however, this presumption of consistency does not apply to measures that *exceed* international standards.

Currently no international standard applies to GMO labeling.[13] Discussions at the recent Biosafety Protocol negotiations failed to provide an international standard for the labeling of GMO products. Instead, the United States applied intense pressure to insert a "WTO savings clause" in the Biosafety Protocol, with the aim of ensuring that the WTO rules would prevail over the Protocol in the event of any conflict.

However, international standards relating to GMOs are currently under consideration at the Codex Alimentarius Commission.[14] The Codex Committee on Food Labeling (CCFL) is considering the adoption of an international standard for GMO labeling that is based on a "substantial equivalence" test. As discussed above, under this test a genetically engineered food that sufficiently resembles a conventional food product in outward characteristics would be considered substantially equivalent, presumed safe, and treated the same as the non-genetically engineered food products. The adoption of a substantial equivalence test at Codex could seriously threaten the WTO-consistency of GMO labeling.[15] On the basis of such an international substantial equivalence standard, a WTO dispute settlement panel may decide that GMO and "substantially equivalent" non-GMO products are *like products*. Consequently, a compulsory GMO labeling scheme could be found to contravene the TBT Agreement's non-discrimination obligation, forbidding WTO Members from distinguishing among like products.

Governments and citizen groups should thus give careful consideration to the role international standards may play in a WTO challenge to GMO labeling schemes, and work to ensure that the standards are designed in ways that support the consumer's right to know about GMO products.

## Conclusion: Steps for Activists

Consumer and environmental citizens groups must work to secure the consumer's right to know about the products she uses and the food she eats in the face of potential challenges based on international trade rules. With this handbook, activists can counter industry and government claims that the WTO will inevitably restrict governments' ability to require labeling of GMO products. As shown in this handbook, WTO rules, if interpreted properly, should not restrict GMO labeling schemes. Rather, GMO product labeling requirements can and should be found consistent with WTO rules. The main points of the handbook can be summarized as follows:

- The TBT Agreement, not the SPS Agreement, governs the labeling of products containing GMOs if the labeling effort reflects broader concerns than simply food safety, for example, the consumer's right to know;
- The TBT Agreement imposes two primary requirements for the labeling of products. Compulsory labeling of GMO products meets these two requirements;
- The first requirement, which prohibits discrimination between "like products," is satisfied because GMO and non-GMO products are not "like products," and so the obligation does not apply;
- The second requirement, which mandates that GMO labels be "no more trade-restrictive than necessary," is satisfied because labeling is the most unobtrusive of all effective methods for informing consumers about GMO products and protecting human health and the environment; and
- If the SPS Agreement is invoked, GMO labeling schemes can still be defended because GMO labeling would not create arbitrary or unjustifiable discrimination, or represent a disguised restriction on international trade.

Additional policy arguments can be made to convince governments to refrain from using the multilateral trading system to undermine a consumer's right to know about GMOs. Applying trade rules to challenge GMO labeling would further damage public support for the WTO and the multilateral trading system. Any WTO panel finding GMO labeling inconsistent with the WTO Agreements would likely be characterized as forcing consumers to unknowingly consume GMO products against their will.

To protect the consumer's right to know, activists must also ensure that decisions taken in international fora, such as Codex, support the consumer's right to know about the genetic modification of products. If international standards supporting this right are recognized, WTO rules will be less of a threat to GMO labeling schemes.

Finally, as shown in this handbook, WTO rules should not – and, according to valid interpretations, do not – restrict the ability of national governments to enact labeling requirements that allow consumers to choose products according to their social, ethical, religious, dietary, and environmental preferences, and protect their right to know about genetic modification. However, the more advocacy groups recognize, support, and demand these rights in the context of international trade, the more likely it is that mandatory labeling of GMOs will be recognized as consistent with WTO requirements.

## FOOTNOTES

[1] TBT Agreement, art. 1.5.
[2] SPS Agreement, art. 1.4.
[3] Which agreement applies also depends on the definition of "measure." Can a single label be characterized as more than one measure? If so, then the SPS Agreement could apply to one aspect of the label and the TBT to another (complicating the domestic regulatory process by imposing dual requirements on the same label). If not, only one agreement can apply.
[4] *See* TBT Agreement, Annex 1.
[5] *See*, SPS Agreement, Annex A.
[6] We note also that the other provisions of the definition of SPS Measures in Annex A of the SPS Agreement must also be considered when determining whether a measures falls within the ambit of the SPS Agreement. In considering the provisions of this definition, it may be argued that GMOs are not in themselves "additives, contaminants, toxins or disease-causing organisms in food beverages" and thus not within the ambit of the SPS Agreement.
[7] *Japan - Alcoholic Beverages*, WT/DS11/AB/R at 23 (citing GATT *Working Party on Border Tax Adjustment*, adopted on 2 December 1970, BISD 18S/97, 102). In determining the meaning of the terms "like" or "similar" as used variously in the GATT, the Report of the GATT *Working Party on Border Tax Adjustment* also suggested that "... the interpretation of the term should be examined on a case-by-case basis. This would allow a fair assessment in each case of the different elements that constitute a "similar" product. GATT *Working Party on Border Tax Adjustment*, BISD 18S/97 at para. 18
[8]Novartis, Poll on Consumer Attitudes on Genetically Modified Products, February 24, 1997.
[9]A less restrictive, but analogous test can be found in the SPS Agreement, which provides that a measure will not be considered more "trade-restrictive than required" unless there is another measure, "reasonably available," that achieves the relevant goal and is "significantly less restrictive to trade" .*See* footnote 3, Article 5.6 SPS Agreement.
[10] *EC Measures Concerning Meat and Meat Products* (Hormones) 1998 WT/DS26/AB/R para 168.
[11] SPS Agreement, article 3.2
[12] Although, there is an international standard supporting the consumer's right to know. The 1985 United Nations Guidelines
for Consumer Protection (UN Res. 39/248) is widely regarded as the single most important document for consumer protection. The stated purpose of these Guidelines is to ensure "access of consumers to adequate information to enable them to make informed choices according to individual wishes and needs."
[13] SPS Agreement, Annex A (defining international standards, guidelines and recommendations for food safety as including the standards, guidelines and recommendations established by the Codex Alimentarius Commission relating to food additives,…., contaminants, methods of analysis and sampling, and codes and guidelines of hygienic practice.)
[14] *See Codex, Substantial Equivalence and WTO Threats to National GMO Labeling Schemes*, CIEL paper 1998.
[15] *Hormones*, para 194. There is no requirement that the risk assessment be carried out by the nation implementing the SPS measure. The measure may be based on a risk assessment taken by another country or an international organization. Id., para 190.

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