



## Teacher Instructions

### GMO's Go Global: Should they be labeled?

This activity helps students understand the complexity of decisions made by international groups. CODEX Alimentarius is an organization for “safe good food for everyone-everywhere.” (<http://www.codexalimentarius.org/about-codex/en/>) This issue of mandatory food labeling, is one that has been discussed by the group.

The unit is a series of lessons to help them prepare for an actual meeting of countries and independent groups that will be affected by decisions made by this body. Each lesson develops an awareness of and appreciation for the perspectives of each stakeholder and the difficulty in reaching consensus during the decision making process.

#### Lesson 1: Student vocabulary

This list of terms can help to start building vocabulary that students may encounter as they research the individual countries involved. It includes both social studies and science terms. The Quizlet (<https://quizlet.com/90595983/gmo-labeling-flash-cards/?new>) contains the same words as the vocab handout. Students can study as flash cards or play the Scatter game to learn the terms and gain familiarity with them.

#### Lesson 2: GMO Webquest and Student position paper

Students may have little exposure to what a genetically modified organism is or a context for learning about it. While there is a great deal of misinformation about genetic modification, in reality, genetic modification has been occurring for years. Food crops have been selectively bred for many years to improve color, texture and flavor (see [http://www.ted.com/talks/pamela\\_ronald\\_the\\_case\\_for\\_engineering\\_our\\_food?language=en](http://www.ted.com/talks/pamela_ronald_the_case_for_engineering_our_food?language=en) for additional background). In addition, the nutritional impact of those varieties has also been selected. Genetic modification using genetic techniques has been occurring since the late 1990's and farmers began growing crops with genetic modification to resist pests. It is important for students to understand the need to use reliable, science-based sites for research. The webquest asks them to look at both sides of the issue and determine their stance using the student position paper.

#### Lesson 3: Country research

The countries involved in the simulation include: Ethiopia, Brazil, Mexico, Turkey and South Africa. Have students complete research on these countries and use the research notes to guide them.

#### Lesson 4: Special interest group research

There are several special interest groups that are invested in decisions about GMO labeling, either pro or con. These groups include: ***Coalition for Safe and Affordable Food, Monsanto, Research Center for Islamic Legislation and Ethics (CILE), European Natural Soy and Plant Based Foods Manufacturing Organization (ENSA), and the Grocery Manufacturers Association.*** Have students complete research information about one of these groups to share to others in class.

**Notes for info:**



## Special Interest Group Research

### **Pro-Mandatory Labeling**

#### ***Food and Agribusiness Institute:***

- Since its inception in 1973, the Institute has graduated more than 650 MBA students, many of whom now hold important management positions in food and agribusiness firms as well as government agencies throughout the United States and the world. One of the major objectives of the Institute is to provide students with an education in the functional areas of management with the application of modern business practices to food and agribusiness firms.

<http://www.scu.edu/ethics/publications/submitted/schulman/tomatoes.html> (2000)

<http://www.scu.edu/ethics/practicing/focusareas/medical/conference/presentations/genetically-modified-foods.html>

#### ***Roman Catholic Church:***

· The Roman Catholic Church is among the oldest religious institutions in the world with over one billion adherents. The Catholic social teachings promote support for the ill, underprivileged and impoverished. The organization is the world's largest provider of non-government medical services and education.

<http://althealthworks.com/1473/catholic-cardinal-calls-for-gmo-labeling-but-its-not-all-good-news/>

[http://www.naturalnews.com/041716\\_Roman\\_Catholics\\_GMOs\\_Catholic\\_church.html](http://www.naturalnews.com/041716_Roman_Catholics_GMOs_Catholic_church.html)

<http://www.news.va/en/news/cardinal-turkson-humanity-a-poor-steward-of-enviro> (Section V)

#### ***Union of Concerned Scientists***

· With a membership of more than 400,000, UCS is a nonprofit science advocacy organization that utilizes independent science to work solving the world's most pressing issues. Membership comes from all walks of life combining to create innovative, practical solutions for a healthy, safe and sustainable future.

<http://www.ucsusa.org/our-work/food-agriculture/our-failing-food-system/genetic-engineering-agriculture#.VafkMXhcKG4>

#### ***European Natural Soy and Plant Based Foods Manufacturing Organization ENSA:***

· Established in January 2003, ENSA is the voice of the soy industry in Europe and represents the interests of natural soy and plant-based food producers. The term "natural" refers to the traditional production processes used by ENSA members to produce non-dairy plant based foods such as soy drinks, desserts, variation to cream, variations to yogurt, meat alternatives and more, using whole soybeans without any genetically modified material.

<http://www.geneticliteracyproject.org/2013/11/26/debating-genetically-modified-food-an-islamic-perspective/>

### **Against Mandatory Labeling**

#### ***Coalition for Safe and Affordable Food:***

· This group is dedicated to providing policy makers, media, consumers and stakeholders with the facts about ingredients grown through GM technology. They promote 'common sense' policy that may further enhance the safety of GM products and protect the role they play in the food chain. The organization is comprised of American farmers and representatives from industry and NGOs.

<http://coalitionforsafeaffordablefood.org>



***Monsanto:***

- This global corporation strives to empower farmers to produce more from their land while also conserving natural resources. The organization was among the first to genetically modify a plant cell, along with other researchers in 1983.

<http://www.monsanto.com/newsviews/pages/food-labeling.aspx>

***Research Center for Islamic Legislation and Ethics (CILE):***

- Founded in 2012, CILE specializes in ethical thought with a focus on applied ethics. The organization brings scholars and global experts together to discuss the critical topics of the day from an Islamic perspective.

<http://www.geneticliteracyproject.org/2013/11/26/debating-genetically-modified-food-an-islamic-perspective/>

***Grocery Manufacturers Association:***

- The GMA is a trade association of the food industry that represents over 300 of the world's largest branded food, beverage and consumer companies. Founded in 1908, the GMA is committed to meeting the needs of consumers through innovative products, responsible business practices and effective public policy solution.

<http://factsaboutgmos.org/disclosure-statement>

**Lesson 5: CODEX Alimentarius Committee Meeting**

Divide students into countries (5 groups, 2-3 students per country) and special interest groups (6 groups, 1-2 students each). It is recommended that the country delegation have more representatives than the special interest groups. Special interest groups rotate between countries to try to persuade the country to see their point of view. As they do, countries make note of their arguments and after all groups have presented to each country, they determine their stand.

Country groups discuss and attempt to reach consensus.

A post test assessment includes each student establishing a personal view on mandatory GMO labeling with evidence to support that view and if consensus is not reached, a recommendation of steps which might move the discussion forward.