

Required Report: Required - Public Distribution

Date: December 13,2020

Report Number: TC2020-0029

Report Name: Agricultural Biotechnology Annual

Country: United Arab Emirates

Post: Dubai

Report Category: Biotechnology and Other New Production Technologies

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Report Highlights:

In May 2020, the United Arab Emirates (UAE) passed a new biosafety law but has not set a date for enforcement. Kuwait, Oman, Qatar and the UAE (GCC-4) permit the importation of GE food products of plant origin. GCC-4 countries have established several technical regulations that require labeling for both raw and further processed food and feed that may contain GE plant products. Importation and domestic production of GE animals and related products are not permitted in the GCC-4.



The Recently Completed Dubai Science Park Towers

Executive Summary:

With limited food production due to a shortage of arable land and water, the Arabian Gulf region depends heavily on imports to meet its food needs. Nearly 90 percent of all food consumed within GCC-4 countries is imported. U.S. agricultural and related exports to the GCC-4 were valued at \$1.8 billion in 2019, while U.S. food exports to the entire Arabian Gulf region were approximately \$3.2 billion. The United States exports a wide variety of agricultural goods to the GCC-4 with consumer-oriented food products as the largest single category.

In 2011, GCC-4 countries passed several technical regulations focusing on GE food issues such as detection, risk analysis, traceability, and general requirements for plant and plant products. In May 2020, the United Arab Emirates passed a new law regulating the import, export, re-export, transit, trading, development, manufacture, production and transfer of food and agricultural products containing GE ingredients. In the event UAE were to implement the new biosafety law, a lack of consumer understanding about GE products could negatively impact U.S. food exports to the region. Additionally, obtaining the proposed permit to import GE products will delay the export-import process and may add additional risk and costs.

As for Animal Biotechnology, GE animal products remain banned within the GCC-4.

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CHAPTER 1: PLANT BIOTECHNOLOGY

PART A: PRODUCTION AND TRADE

- a) **PRODUCT DEVELOPMENT:** The GCC-4 agricultural sector is limited to only a few varieties of fruits and vegetables grown seasonally like dates and fresh greens. Due to lack of water and land resources there is no commercial production of GE products in the GCC-4. Oman and Kuwait have conducted limited research on the use of biotechnology to enhance production of citrus and dates, while the UAE is currently studying the use of drought resistant plant varieties. Additionally, the Kuwait Institute for Scientific Research has done preliminary research on biotechnology in date palm trees in order to combat red weevil, a plant pest that causes serious crop damage and threatens the future of date production in the region.
- b) **COMMERCIAL PRODUCTION:** There is no commercial production of GE crops given limited domestic agricultural resources.
- c) **EXPORTS:** There is no export of GE agricultural products from the GCC-4.
- d) **IMPORTS:** GE crops and foods that contain GE ingredients have been permitted to enter GCC-4 countries both directly and through transshipment.
- e) **FOOD AID:** While the Arabian Gulf does not have domestic production of GE crop varieties, the United Nations World Food Programme and the U.S. Agency for International Development both have offices, storage space, and agreements with the United Arab Emirates. Both organizations use

the UAE as a logistical hub to deliver food aid in the Middle East and North Africa. Such food aid often contains GE products.

- f) **TRADE BARRIERS:** There are currently no trade barriers, but implementation of new laws and public skepticism requires continued monitoring.

PART B: POLICY

- a) **REGULATORY FRAMEWORK:** No biotechnology crops are produced in the GCC-4 countries. Consequently, there are no established procedures to address environmental issues related to the production of biotech crops.

Since the GCC's inception, its Member States have pursued a policy to harmonize the food laws and regulations within the region. GCC-4 countries are moving towards customs unification to facilitate and simplify trade within the region. A greater emphasis is being placed on the harmonization of technical regulations, standards, and import procedures for food and food labeling.

As per the recommendation of the GCC Standards Organization (GSO) biotechnology subcommittee, GCC-4 countries have developed the following technical regulations to monitor and test imported raw and processed foods for biotechnology ingredients:

GSO ISO 21570: 2009 (ISO 21570:2005)

“Foodstuffs—Methods of analysis for the detection of genetically modified organisms and derived products—Quantitative nucleic acid-based methods”

GSO ISO 21098: 2009 (ISO 21570:2005)

“Foodstuff-- Nucleic acid-based method of analysis of genetically modified organisms and derived products – Information to be supplied and procedure for the addition of methods to ISO 21569, ISO 21570, ISO 21571”

GSO CAC/GL 44:2009

“Principles for the risk analysis of foods derived from modern biotechnology”

GSO 2141/2011

“General requirements for genetically modified unprocessed agricultural products”

GSO 2142/2011

“General requirements for genetically modified processed food and feed”

This GSO standard is concerned with the health, efficacy, labeling, certification, allergens, maximum residue limits and other limits, traceability and risk assessment for processed food and feed obtained through certain techniques of genetic engineering, and processed food and feed that contains or is

produced from genetic engineering if the GE trait present is higher than one percent of the ingredients considered individually, or if the product consists of a single ingredient derived from GE.

GSO 2143/2011

“General Requirements for risk assessment and traceability for genetically modified products.”

In May 2020, the United Arab Emirates passed a new law regulating the import, export, re-export, transit, trading, development, manufacture, production and transfer of food and agricultural products containing 0.9 percent or more components derived from bioengineering. The new biosafety law requires that companies obtain a permit to import GE products into the UAE and requests the creation of a registry of applications. It also outlines requirements for labeling of GE food products and describes penalties if rules are broken. While this law was published by the Ministry of Climate Change and Environment, no official action was taken to enforce this law. In the event UAE were to implement the new GE law for labeling, a lack of consumer understanding about GE products could negatively impact U.S. food exports to the region. Additionally, obtaining a permit to import GE products may delay the export-import process and add additional risks and costs.

The law in Arabic can be found here:

<https://www.moccae.gov.ae/assets/download/2de95d5b/c3c2994c.pdf.aspx?view=true>

For the unofficial translation, please check FAS Dubai GAIN report through the following link:

https://apps.fas.usda.gov/newgainapi/api/Report/DownloadReportByFileName?fileName=UAE%20Passes%20New%20Mandatory%20Biotech%20Labeling%20Law_Dubai_United%20Arab%20Emirates_10-17-2020

b) **APPROVALS:** N/A

c) **STACKED OR PYRAMIDED EVENT APPROVALS:** N/A

d) **FIELD TESTING:** N/A

e) **INNOVATIVE BIOTECHNOLOGIES:** N/A

f) **COEXISTENCE:** N/A

g) **LABELING AND TRACEABILITY:** The existing technical regulation GSO 2142/2011 provides details on the labeling requirements for processed food and feed. The following is a text from the technical regulation describing labeling requirements:

Without prejudice to what is stated in GSO mentioned in item 2.1, and the requirements stated in the GSO Standards for each product. The following requirements shall be clearly identified on the label:

- If the product consists of more than one ingredient, the words (genetically modified) or (produced from genetically modified, name of the ingredient) shall appear clearly and easily to be read in the list of ingredients in parentheses immediately following the ingredient concerned with same font size and different color.
- If the ingredient is designated by the name of a category, the words (contains genetically modified, name of organism) or (contains, name of ingredient, produced from genetically modified, name of organism) shall appear clearly and easily to be read in the list of ingredients with same font size and different color.
- If there is no list of ingredients, the words (genetically modified) or (produced from genetically modified, name of organism) shall appear clearly and easily on the labeling.
- Labeling must not mislead the purchaser as to the characteristics of the foodstuff and among other things, in particular, as to its nature, identity, properties, composition, method of production and manufacturing.
- The indications referred to in (4/2/1 and 4/2/2) may appear in a footnote to the list of ingredients and in this case, they must be printed in a font at least the same size as the list of ingredients. If there is no list of ingredients, they must appear clearly and easily to be read on the labeling.
- If the food is offered for sale to the final consumer as non-pre-packaged food or as prepackaged food in small containers of which the largest surface has an area of less than 10 cm square, the information required in (4/2/1 and 4/2/2) must be permanently and visibly displayed either on the food display or immediately next to it, or on the packaging material, in font sufficiently large for it to be easily identified and read.
- According to GSO-9 2013 the exporter must provide an official certificate issued by a competent authority to prove any claims made on the product label, including the use of the term “GMO Free.” The following is a text from the technical regulation describing the requirement. “When use of any logo as special for quality or organic product...etc., must provide proof of the validity of this claim.”

h) **MONITORING AND TESTING:** UAE has several laboratories that have the capacity to monitor and test for GE products if needed. The list of accredited laboratories is as follows:

- Al Hoty Stanger Laboratories ICAD, Abu Dhabi
- SGS Gulf Food and Chemical Testing Laboratory, Dubai
- Inspectorates International Limited, Dubai
- Holistic International Testing Services, Dubai
- Advance Biotechnology Center, Dubai
- Dubai Central Lab (Dubai Municipality)

i) **LOW LEVEL PRESENCE POLICY (LLP):** Other than the requirements described in previous sections of Part B, additional policies for LLP do not exist.

j) **ADDITIONAL REGULATORY REQUIREMENTS:** N/A

k) **INTELLECTUAL PROPERTY RIGHTS (IPR):** N/A

l) **CARTAGENA PROTOCOL RATIFICATION:** Among the GCC-4, Oman and Qatar are the only countries that have ratified the Cartagena Protocol on Biosafety. While biosafety committees do exist in all GCC-4 member-states, the role of the committees in each country is still under development.

m) **INTERNATIONAL TREATIES/FORA:** GCC-4 countries are members of the International Plant Protection Convention (IPPC) and Codex Alimentarius.

n) **RELATED ISSUES:** N/A

PART C: MARKETING

a) **PUBLIC/PRIVATE OPINIONS:** Regulatory officials in nearly all GCC-4 countries have highlighted the need for improved consumer education on the safety and efficacy of biotech crops as well as advocating for the development of the regulatory capacity to test for GE residue in foods. Most consumers in the GCC-4 are highly skeptical of biotechnology. A significant educational gap remains in risk communication. GCC-4 governments increasingly respond to public skepticism by adopting hazard-based rules and approaches.

b) **MARKET ACCEPTANCE/STUDIES:** N/A

CHAPTER 2: ANIMAL BIOTECHNOLOGY

No animal biotechnology activities are currently conducted in GCC-4 countries. There are no technical regulations or standards that govern animal biotechnology. However, the use of animal biotechnology in food is closely scrutinized over concerns that genes from banned animals under Islamic rules could be used in animal breeding or production.

PART D: PRODUCTION AND TRADE

- a. **PRODUCT DEVELOPMENT:** There is no research or development of GE animal products in the GCC-4.
- b. **COMMERCIAL PRODUCTION:** There is no commercial production of GE animal products in the GCC-4.
- c. **EXPORTS:** There is no export of GE animal products from the GCC-4.
- d. **IMPORTS:** There is no import of GE animal products to the GCC-4.
- e. **TRADE BARRIERS:** N/A

PART E: POLICY

- a) **REGULATORY FRAMEWORK:** Animal biotechnology is currently not allowed in the GCC-4. The new biosafety law does not cover animal biotechnology.
- b) **INNOVATIVE BIOTECHNOLOGIES:** N/A
- c) **LABELING AND TRACEABILITY:** N/A
- d) **INTELLECTUAL PROPERTY RIGHTS (IPR):** N/A
- e) **INTERNATIONAL TREATIES/ FORA:** N/A
- f) **RELATED ISSUES:** N/A

PART F: MARKETING

- a) **PUBLIC/ PRIVATE OPINIONS:** Skepticism around animal biotechnology in the UAE takes a different form and shape than hesitance around plant biotechnology. Islamic law and cultural practices in the region, including Halal rules, create an environment where public acceptance is difficult. Cloning and genome editing as interpreted by current Halal rules is not allowed. Religious acceptance strongly informs public and private opinions and creates significant barriers to adoption of these technologies.
- b) **MARKET ACCEPTANCE/STUDIES:** N/A

CHAPTER 3: MICROBIAL BIOTECHNOLOGY

PART G: PRODUCTION AND TRADE

- a) **COMMERCIAL PRODUCTION:** Given the expense of manufacturing food and food products domestically, no production using microbial biotechnology currently exists in the GCC-4. Qatar and the UAE have growing dairy sectors, but do not currently use microbial biotechnology in production.

- b) **EXPORTS:** The GCC-4 is a re-export hub for the region, but is not the origin of any products that contain microbial biotech-derived food ingredients including alcoholic beverages, dairy products, and processed products.
- c) **IMPORTS:** The GCC-4 imports alcoholic beverages, dairy products, and processed products which may contain microbial biotech-derived food ingredients. The largest portion of UAE imports is consumer-oriented.
- d) **TRADE BARRIERS:** N/A

PART H: POLICY

- a) **REGULATORY FRAMEWORK:** Governments in the GCC-4 have only recently begun to adopt regulations around plant biotechnology. There are currently no regulations in place concerning microbial biotechnology.
- b) **APPROVALS:** N/A
- c) **LABELING AND TRACEABILITY:** There are currently no labeling or traceability requirements on products derived from or containing microbial biotechnology.
- d) **MONITORING AND TESTING:** N/A
- e) **ADDITIONAL REGULATORY REQUIREMENTS:** N/A
- f) **INTELLECTUAL PROPERTY RIGHTS (IPR):** N/A
- g) **RELATED ISSUES:** N/A

PART I: MARKETING

- a) **PUBLIC/PRIVATE OPINIONS:** There is currently little public awareness around microbial biotechnology or its use in the food sector.
- b) **MARKET ACCEPTANCE/STUDIES:** N/A