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Jordan

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Jordan's Agricultural Biotechnology Regulations Remain Unchanged

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Report Highlights:
In 2016, Jordan's Ministry of the Environment enacted a biosafety law based on the Cartagena Biosafety Protocol. Jordan however lacks a clear agricultural biotechnology framework. It does not yet have a legal implementing regulation covering the trade in living modified organisms (LMO), nor a notification mechanism in place. Jordan's dairy and poultry sectors, the country's largest agribusinesses, are dependent on imported soybeans and soybean meal, as well as on corn and dried distillers grains with solubles (DDGS). Without access to global markets for feedstuffs, the dairy and poultry sectors' production would not be commercially feasible, nor sustainable.

EXECUTIVE SUMMARY

In 2016, Jordan's Ministry of the Environment enacted a biosafety law based on the Cartagena Biosafety Protocol. Jordan however lacks a clear agricultural biotechnology framework. It does not yet have a legal implementing regulation covering the trade in living modified organisms (LMO), nor a notification mechanism in place.

There is a draft implementation regulation circulating, which would require the labeling of products derived from agricultural biotechnology; including provisions for testing, registration, and approval. The draft implementing regulation's deficiencies makes its ratification problematic.

Jordan is dependent on food imports, and does not produce sufficient agricultural commodities to meet demand; any disruption to imports potentially poses a food security risk and could be destabilizing.

Jordan's dairy and poultry sectors, the country's largest agribusinesses, are dependent on imported soybeans and soybean meal, as well as on corn and dried distillers grains with solubles (DDGS). These industries are completely reliant on imports to meet their feed requirements. In calendar year (CY) 2017 (January-December), Jordan imported from all sources approximately 1.5 million metric tons (MMT) of soybean meal, DDGS (exclusively from the United States), and corn (mainly from Argentina, the United States, Brazil, and to a lesser extent Ukraine), most of which are genetically engineered. Without access to global markets for feedstuff, the dairy and poultry sectors' production would not be commercially feasible, nor sustainable.

The food industry has mixed views about biotechnology's risks and benefits. Jordan's dairy and poultry sectors support biotechnology. The country's export sector, mainly fruit and vegetable exporters, wish to be perceived as genetically engineered (GE)-free to cater to more affluent European export destinations. Export focused producers oppose the introduction of any genetically engineered crops. Jordan is not a major producer of agriculture and relies heavily on imports. The general consumer hears from anti-GE activists groups, but these have yet to garner significant momentum in a price sensitive market.

The United States and Jordan continue to benefit from their extensive economic partnership. A key element of this relationship is the United States-Jordan Free Trade Agreement, fully implemented on January 1, 2010.

TABLE OF CONTENTS

CHAPTER 1: PLANT BIOTECHNOLOGY

PART A: PRODUCTION AND TRADE

a) PRODUCT DEVELOPMENT: Despite incipient efforts by university researchers, there is no product development of genetically engineered (GE) crops in Jordan. University researchers are keen to take the lead in introducing GE applications in Jordan; they seek to reduce the excessive use of pesticides and address abiotic stresses such as extreme heat, drought, and salinity.

b) COMMERCIAL PRODUCTION: Jordan has no commercial GE crop production.

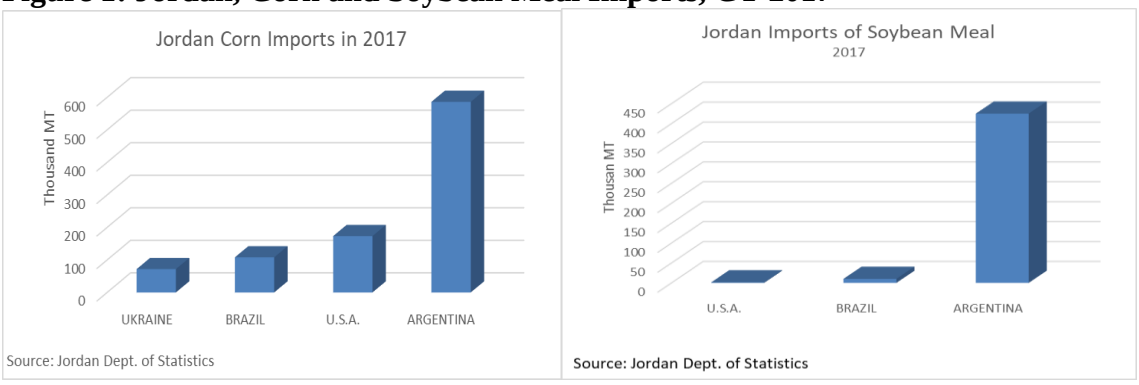
c) EXPORTS: Jordan does not export commodities or products derived from agricultural biotechnology.

d) IMPORTS: Jordan does not allow the commercial cultivation of genetically engineered crops. It does however rely extensively on imports of food and agricultural products derived through GE (e.g., soybean meal, corn, and processed foods). Imports of processed food products, including cereals, snack foods, and oils, may contain GE ingredients.

Jordan's dairy and poultry sectors are dependent on imported soybeans and soybean meal, as well as on corn and dried distiller grains with solubles (DDGS). These industries are completely reliant on imports to meet their feed requirements. In calendar year (CY) 2017 (January-December), Jordan imported from all sources approximately 1.5 million metric tons (MMT) of soybean meal, DDGS (exclusively from the United States), and corn (mainly from Argentina, the United States, Brazil, and to a lesser extent Ukraine), most of which are genetically engineered.

Without access to global markets for feedstuff, the dairy and poultry sectors' production would not be commercially feasible, nor sustainable. Approximately 98 percent of Jordan's soybean meal imports originate in Argentina, where the share of GE soybean reportedly accounts for nearly 100 percent of production. Similarly, Argentine and Brazilian corn are respectively 97 and 89 percent derived from genetic engineering.

Figure 1: Jordan, Corn and Soybean Meal Imports, CY 2017



The United States and Jordan continue to benefit from their extensive economic partnership. A key element of this relationship is the United States-Jordan Free Trade Agreement, fully implemented on January 1, 2010.

e) FOOD AID: Jordan is a food aid recipient. In 2015, the Jordanian government received 95,000 metric tons (MT) of donated U.S.-origin wheat and again another 100,000 MT in 2016-17 under the U.S. Department of Agriculture's Food for Progress program (FFP) (see, GAIN-JORDAN - Sept. 14, 2017 – Jordan Welcomes USDA\FAS Food for Progress 50,000 MT Wheat Shipment). The monetization (i.e., sale) of donated American wheat has strengthened Jordan's sanitary and phytosanitary (SPS) and irrigation infrastructure (see, GAIN-JORDAN – March 8, 2018 – Food for Progress Program for Jordan Update: The al-Karak Dam begins to benefit Jordanian Farmers. Three separate U.S.-origin agricultural commodity donations (i.e., in fiscal year (FY) 2012, 2015, and 2017) total $54.2 million to date.

f) TRADE BARRIERS: There are no biotechnology issues or barriers impeding U.S.-bulk products. However, Jordan Regulation JS 9:2001, contains a provision that bans the importation of products labeled as containing GE ingredients or components. Products that may contain GE ingredients, but not labeled as such face no restrictions.

In late 2017, the Jordan Food and Drug Administration (FDA) began apparently enforcing the 2001 regulation by detaining consignments of packaged consumer goods labeled as containing GE ingredients. It is unclear on what basis the Jordan FDA premising its actions. The Jordan FDA concurrently drafted a food trade regulation with provisions requiring mandatory sampling, testing, registration, and ingredient disclosure. Jordan has not notified the new draft regulation to the World Trade Organization.

PART B: POLICY

a) REGULATORY FRAMEWORK: In 2016, Jordan's Ministry of the Environment enacted a biosafety law based on the Cartagena Biosafety Protocol. Jordan however lacks a clear agricultural biotechnology framework. It does not yet have a legal implementing regulation for the biosafety law covering the trade in living modified organisms (LMO), nor a notification mechanism in place. There is a draft regulation circulating, which would require the labeling of products derived from agricultural biotechnology; including provisions for testing, registration, and approval. The draft implementing regulation's deficiencies makes its ratification problematic.

b) APPROVALS: Jordan's Ministry of the Environment enacted a biosafety law in 2016 regulating agricultural products derived from biotechnology. Until the implementing regulation is in place, products cannot be submitted for approval.

c) STACKED or PYRAMIDED EVENT APPROVALS: Jordan has not yet considered this issue. It is unclear if the evaluation of stacks will occur separately via the same process as single gene traits.

d) FIELD-TESTING: There are no GE field trials in Jordan. The country's lack of a science-based biosafety regulation impedes the approval mechanism for field-tests. Jordan does not grow GE crops such as soybeans and cotton. Corn production is not significant, and limited to conventional seed.

e) INNOVATIVE BIOTECHNOLOGIES: There is no regulatory policy for innovative biotechnologies such as genome editing using ZFNs, TALENs, and CRISPR/Cas9.

f) COEXISTENCE: Jordan does not have a policy on coexistence between GE crops and conventional crops.

g) LABELING: Regulation JS 9:2001 (March 2001) establishes that the Jordan Institution for Standards and Metrology (JSMO) sets Jordanian standards. Standards for the labeling of pre-packaged foods are equivalent to the *Codex Alimentarius* (Codex) general standard for the labeling of pre-packaged foods. Regulation JS 9:2001, however, contains a provision stating that the entry into Jordan of any product labeled as genetically engineered and/or containing GE ingredient is not permissible.

FAS Amman (Post) observes that shipments of U.S.-origin processed food products (e.g., breakfast cereals and snack foods), labeled as "containing" or "may contain" GE ingredients are disproportionately subject to Jordan FDA detention due to the manufacturer's labeling disclosure. Processed food products from other origins that may contain GE ingredients, but not labeled as such face no restrictions.

h) MONITORING AND TESTING: There is no formally enacted system for GE monitoring and/or testing. A new draft regulation proposes the monitoring and testing products derived through genetic engineering. It is uncertain whether Jordan has the capacity to effectively, and reliably, test for GE ingredient content.

i) LOW LEVEL PRESENCE POLICY: Jordan has no low-level presence policy.

j) ADDITIONAL REGULATRORY REQUIREMENTS: Not applicable.

k) INTELLECTUAL PROPERTY RIGHTS (IPR): Jordan adopted the New Plant Variety Protection Law in 2004. The Law meets the WTO's TRIPS Section 5 Article 27 (3.b), providing for the protection of plant varieties by an effective *sui generis* system.

l) CARTAGENA PROTOCOL RATIFICATION: Jordan is a signatory to the Cartagena Protocol on Biosafety, a supplement to the Convention on Biological Diversity. In 2016, Jordan's Ministry of the Environment enacted a biosafety law based on the Cartagena Biosafety Protocol. Jordan however lacks a clear agricultural biotechnology framework. It does not yet have a legal implementing regulation covering the trade in living modified organisms, nor a notification mechanism in place. The draft implementing regulation would implement the protocol's provisions on trade of living modified organisms.

m) INTERNATIONAL TREATIES/FORA: Jordan has ratified the Convention on Biological Diversity and Kyoto and Montreal protocols. It is a member of the International Plant Protection Convention, the World Trade Organization, and of the *Codex Alimentarius.*

n) RELATED ISSUES: Not applicable.

PART C: MARKETING

a) PUBLIC/PRIVATE OPINIONS: The public sector views on biotechnology are inconsistent. The Ministry of the Environment has enacted a biosafety law that will require the labeling of biotech products. The Ministry of Agriculture however realizes that it would be a costly and an erroneous proposition. The dairy and poultry sectors, Jordan's largest agribusinesses, are dependent on imported feedstuff mainly derived from genetic engineering. The Jordan FDA at the same time aims to take sole oversight of GE food products, premising its actions on erroneous food safety concerns.

b) MARKET ACCEPTANCE/STUDIES: Market acceptance of GE products is controversial. Anti-biotech campaigns are very active on social media. These generate misconceptions, and often make unsubstantiated claims about the potential health risks associated with the consumption of food products derived from genetic engineering. Jordan is dependent on food imports from global markets; any disruption to trade potentially poses a food security risk.

The food industry has mixed views about biotechnology's risks and benefits. Jordan's dairy and poultry sectors hold favorable views of biotechnology. However, the country's export sector, mainly fruit and vegetable exporters, wish to be perceived as GE-free to appease more affluent European export destinations. Export focused producers oppose the introduction of any genetically engineered crops. The general consumer hears from anti-GE activists groups, but these have yet to garner significant momentum in a price sensitive market.

There are no marketing studies on genetically engineered plants.

CHAPTER 2: ANIMAL BIOTECHNOLOGY

PART D: PRODUCTION AND TRADE

a) PRODUCT DEVELOPMENT: No genetically engineered (GE) animals are under development.

b) COMMERCIAL PRODUCTION: There is no GE approved animal production.

c) EXPORTS: Not applicable.

d) IMPORTS: Jordan does not import GE animals or livestock clones or products derived from these animals, including genetics.

e) TRADE BARRIERS: Same as those associated with plant biotechnology.

PART E: POLICY

a) REGULATORY FRAMEWORK: Jordan's biosafety law covers microorganisms, but it lacks an implementing regulation.

b) INNOVATIVE BIOTECHNOLOGIES: Not applicable.

c) LABELING AND TRACEABILITY: Same as with plant biotechnology.

d) INTELLECTUAL PROPERTY RIGHTS (IPR): Currently undetermined.

e) INTERNATIONAL TREATIES and FORUMS: Jordan is a member of the Food and Agriculture Organization (FAO) and *Codex Alimentarius*. Jordan follows World Organization for Animal Health (OIE) standards and protocols for live animal and beef product imports. It does not support the production of genetically engineered animals.

f) RELATED ISSUES: Not applicable.

PART F: MARKETING

a) PUBLIC/PRIVATE OPINIONS: There is skepticism about biotechnology's benefits.

b) MARKET ACCEPTANCE/STUDIES: No known information exists on market acceptance or public opinion studies.