

**Required Report:** Required - Public Distribution

**Date:** November 14, 2022

**Report Number:** MO2022-0024

**Report Name:** Agricultural Biotechnology Annual

**Country:** Morocco

**Post:** Rabat

**Report Category:** Biotechnology and Other New Production Technologies

**Prepared By:** Mohamed Fardaoussi

**Approved By:** Robert Wright

**Report Highlights:**

Morocco continues to import agricultural products derived from genetically engineered (GE) technologies for use in animal feed products. No GE products have been developed or commercialized for local production in Morocco. GE products are not allowed for human consumption.

## EXECUTIVE SUMMARY

Morocco neither produces nor allows importation of agricultural products derived from biotechnology for human consumption. However, Morocco does import genetically engineered (GE) products for its livestock and poultry sectors. Imports of biotech seeds for planting are currently not allowed by Morocco and standard seed imports require a “GMO-free certificate” for customs clearance. For more information, please check our [2022 Morocco: FAIRS Country Report](#).

While a formal biosafety framework is absent, Morocco’s [National Office for Food Safety \(ONSSA\)](#), located within the [Ministry of Agriculture, Fisheries, Rural Development, Water, and Forests \(both links in French\)](#), is the competent authority in charge of implementing regulations and agreements related to biotechnology. In September 2012, the Ministry published guidance to clarify Morocco’s position on GE products, which states that Morocco follows the precautionary principle in respect to justifying the ban on GE products from local cultivation and from their presence in products for human consumption, while simultaneously recognizing their international presence and acceptance as an animal feed source.

Agricultural biotechnology activities in Morocco remain active but limited largely to research with no developed GE products having been commercialized for local production.

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	2
<b>CHAPTER 1: PLANT BIOTECHNOLOGY</b> .....	4
<b>PART A: Production and Trade</b> .....	4
<b>PART B: POLICY</b> .....	5
<b>PART C: Marketing</b> .....	8
<b>CHAPTER 2: ANIMAL BIOTECHNOLOGY</b> .....	8
<b>PART D: Production and Trade</b> .....	8
<b>PART E: Policy</b> .....	9
<b>PART F: Marketing</b> .....	9
<b>CHAPTER 3: MICROBIAL BIOTECHNOLOGY</b> .....	9
<b>PART G: Production and Trade</b> .....	9
<b>PART H: Policy</b> .....	9
<b>PART I: Marketing</b> .....	10

## CHAPTER 1: PLANT BIOTECHNOLOGY

### PART A: Production and Trade

**a) RESEARCH AND PRODUCT DEVELOPMENT:** Morocco is actively engaged in agricultural biotechnology research and development as a means for addressing the country's food security challenges. This work is led by the [National Agronomic Research Institute \(INRA\)](#) and focused on finding solutions for Morocco's major crops, including cereals, tomato, forage, date palm, citrus, and olives (link in French).

**b) COMMERCIAL PRODUCTION:** None.

**c) EXPORTS:** Not applicable.

**d) IMPORTS:** Morocco is a major importer of soy products (USA and Argentina - 95% market share), corn products (Argentina - 55%, USA 32%), sugar products (Brazil - 87%), and cotton products (Spain - 51%) in 2021. Imported feed ingredients are a necessity for Morocco's livestock and poultry industries. Demand for imported sugar has been supported by government subsidies at the retail level, but they are being phased out.

**Table 1: Official USDA Production, Supply, and Distribution Estimates, MY 2021/2022**

Commodity	Production	Imports	Exports	Domestic	Unit
				Consumption	Description
Corn	115	2,500	0	2,600	(1,000 MT)
Oilseed, Soybean	0	75	0	75	(1,000 MT)
Meal, Soybean	60	675	0	735	(1,000 MT)
Oil, Soybean	13	550	25	535	(1,000 MT)
Oilseed, Rapeseed	1	0	0	1	(1,000 MT)
Meal, Rapeseed	1	90	0	90	(1,000 MT)
Oil, Rapeseed	0	2	0	2	(1,000 MT)
Sugar, Centrifugal	450	1,453	670	1,233	(1,000 MT)
Cotton	0	35	0	35	(1,000 480-lb Bales)

Source: [FAS/PSD online](#)

**e) FOOD AID:** Not applicable. Morocco is neither a recipient nor provider of food aid.

**f) TRADE BARRIERS:** Morocco bans GE products from local cultivation and from products for human consumption. See Policy/Regulatory Framework below.

## **PART B: POLICY**

### **a) REGULATORY FRAMEWORK**

The legal foundation on which the Ministry of Agriculture regulates GE products was originally based on an internal memorandum, dated August 1999, which imposed a blanket prohibition on imports of biotechnology products and included no details on the product coverage, certification, testing, or threshold levels. This two-paragraph memo, signed by subordinates from the Ministry of Agriculture, was issued at a time when various food safety and health-related issues (GE, BSE, Dioxin, FMD, etc.) were dominating headlines in Europe. The memorandum initially raised concerns because of the uncertainties of its implementation, but those concerns have diminished over time.

In 2008, the Ministry of Agriculture sent a draft law relevant to the introduction, use, and marketing of biotech products to various other ministries for review. However, the draft law was rescinded in 2011 for further revision by the Ministry of Agriculture and has since remained dormant.

In September 27, 2012, the Ministry of Agriculture published the following on its website ([link in French](#)):

#### ***“Transgenic foods banned for human consumption in Morocco”***

*“Following the study conducted by French researchers suggesting the dangerousness of the consumption of certain transgenic maize (GMO) and whose results are being verified within the European Union, the Ministry of Agriculture and Maritime Fisheries wishes to provide the following clarifications:*

*In Morocco, under the precautionary principle, transgenic foods are banned for human consumption. No presence of GMOs is allowed in imported products intended for human consumption, they are absent in the national agricultural production and also in all the inputs used in Moroccan agricultural crops (seeds, etc.).*

*Practice and legislation around the world admit their presence in certain foods for animal feed. It should be noted that the transgenic maize varieties targeted by the French study are not authorized in Morocco for animal feed purposes.*

*The European Food Safety Authority (EFSA) has taken the published study to verify its content and veracity. The Ministry of Agriculture and Maritime Fisheries remains vigilant regarding any new development.”*

### National Biosafety Committee (NBC)

To date, Morocco does not have a legislative or regulatory framework related to biotechnology, either for domestic production or imports of GE commodities. In October 2011, ONSSA became the competent government authority in charge of implementing regulations and agreements related to biotechnology, formerly the function of the NBC. Consequently, the role of the NBC was significantly diminished. The NBC was created in April 2005 to provide counseling on the use, handling, transportation, import, distribution and marketing of biotech organisms. The responsibilities of the NBC encompass national policy, risk assessment, legal framework, and research.

### Other laws and regulations covering biotechnology

In 2012, the Morocco's Institute for Codes of Standardization published a [Halal Code of Standards](#) (link in French) which states:

#### ***“5.10 Genetically Modified Foods***

- *Genetically modified organisms (GMOs), ingredients or products containing GMOs should not be produced by the use of non-Halal genetic material (For example, because pork is prohibited, by extension, any products made from genetically altered pigs are prohibited too).*
- *Genetically modified foods that are produced by the transfer of genes from other living species to a plant, an animal and a microbiological source through genetic modification technologies and modifications that are made in the DNA of foods, may be used for Halal food production.”*

In 2010, ONSSA issued a [Code of Procedures](#) (link in French) for seed potato imports which requires a “non-GMO” certificate.

**Loi n°28-07** « Sécurité Sanitaire des produits alimentaires » (health safety for food products):

- Art. 6 grants competent authorities the right to restrict imported food products based on the precautionary principle if they suspect it may be dangerous to human or animal health
- Art. 3 definition of the precautionary principle

[Law n°39-12](#) « Production biologique des produits agricoles et aquatique » (Organic production of agriculture and fisheries products, link in French):

- Art. 11 prohibition of "GMOs"  
“a) Genetically modified organisms (GMOs) or products obtained from them are prohibited”.

## Morocco Halal Labelling

- “3.8 Genetically Modified Foods (GMFs): Food and beverages containing products (and / or by-products) of Genetically Modified Organisms (GMO).” See GAIN [NM 08.0.800 for more information](#).

**b) APPROVALS:** The basic Moroccan law on crops is the [Decree # 1-69-169 \(link in French\)](#), dated July 25, 1969, which regulates seed production and marketing. The law is silent on GE seeds; however, Morocco requires a “non-GMO” certificate for approval of new domestic plant varieties.

**c) STACKED OR PYRAMIDED EVENT APPROVALS/ AUTHORIZATIONS:** Not applicable.

**d) FIELD TESTING:** ONSSA has not permitted open field testing of GE crops.

**e) INNOVATIVE BIOTECHNOLOGIES:** None.

**f) COEXISTENCE:** Not applicable.

**g) LABELING AND TRACEABILITY:** GE labeling is not required in Morocco. However, on several occasions, European customers and consumer groups have requested from their Moroccan suppliers that exported products be free from GE products (e.g., vegetable oil in canned sardines, tomatoes, etc.). For consumer products entering Morocco, a GE-free label may be included to avoid potentially being asked to provide a GE-free certificate.

**h) MONITORING AND TESTING:** Morocco has a history of partnering with EU laboratories.

**i) LOW LEVEL PRESENCE (LLP) POLICY:** Not applicable.

**j) ADDITIONAL REGULATORY REQUIREMENTS:** Morocco requires official registration of all new plant varieties. For the list of required documents and cost for ONSSA to issue variety approval see [link \(in French\)](#).

**k) INTELLECTUAL PROPERTY RIGHT (IPR):** Available on ONSSA’s [website](#) (link in French) and summarized in a GAIN [report](#). Morocco issued its basic in 1997 [law #9-94](#) (link in French) for IPR of plant variety protection, later enforced on October 28, 2002, with the publication of various implementing orders. Morocco is a member of the [WTO TRIPS agreement](#) since December 2, 2008.

**l) CARTAGENA PROTOCOL RATIFICATION:** Morocco signed the Cartagena Protocol in May 2000, ratified it on April 25, 2011, and it entered into force on July 24, 2011. The Ministry of Energy, Mining, Water and Environment is the focal point, which serves as a liaison for information and compliance. In October 2011, ONSSA took charge of the implementation of the

Cartagena Protocol. On February 15, 2013, Morocco published its [National Biosafety Framework](#), but has not established a corresponding legal framework.

On December 9, 2011, Morocco signed the Nagoya Protocol on Access and Benefit Sharing. The Moroccan Government Council and the Ministerial Council approved the Protocol on March 22 and June 17, 2012, respectively; and ratified it on April 22, 2022.

**m) INTERNATIONAL TREATIES/FORA:** Morocco is a [member](#) of the World Trade Organization (WTO), the International Plant Protection Convention (IPPC), and the Codex Alimentarius.

**n) RELATED ISSUES:** None.

### **PART C: Marketing**

**a) PUBLIC/PRIVATE OPINIONS:** Moroccan researchers are largely aware of biotechnology's promise to help Morocco alleviate national food security challenges. Meanwhile, policymakers, while open to finding pragmatic solutions, will look to follow Europe for the foreseeable future.

**b) MARKET ACCEPTANCE/STUDIES:** Morocco's biggest challenge in biotechnology is the misconception that acceptance of biotechnology may negatively affect demand in the EU for Moroccan agricultural exports, especially fruits and vegetables.

## **CHAPTER 2: ANIMAL BIOTECHNOLOGY**

### **PART D: Production and Trade**

**a) PRODUCT DEVELOPMENT:** To safeguard its citrus crop, Morocco has researched using Oxitec's [GE self-limiting medfly](#); however, open field trials have not been approved. Netted trials in collaboration with SAOAS took place in 2016. The developer claims that the results showed Oxitec's Medfly successfully suppressed the wild population and suggests the self-limiting Medfly could be used in combination with other methods as part of an integrated pest management approach.

**b) COMMERCIAL PRODUCTION:** None.

**c) EXPORTS:** Not applicable.

**d) IMPORTS:** Not applicable.

**e) TRADE BARRIERS:** Not applicable.



## **PART E: Policy**

- a) **REGULATORY FRAMEWORK:** See *Plant Biotechnology*.
- b) **INNOVATIVE BIOTECHNOLOGIES:** None.
- c) **LABELING AND TRACEABILITY:** See *Plant Biotechnology*.
- d) **INTELLECTUAL PROPERTY RIGHTS (IPR):** There are no relevant regulations for animal biotech IPR.
- e) **INTERNATIONAL TREATIES AND FORUMS:** Morocco is a member of the WTO, the World Animal Health Organization (OIE), and Codex Alimentarius.
- f) **RELATED ISSUES:** None.

## **PART F: Marketing**

- a) **PUBLIC/PRIVATE OPINIONS:** See *Plant Biotechnology*.
- b) **MARKET ACCEPTANCE:** See *Plant Biotechnology*.

## **CHAPTER 3: MICROBIAL BIOTECHNOLOGY**

### **PART G: Production and Trade**

- a) **COMMERCIAL PRODUCTION:** Morocco produces no food ingredients derived from microbial biotechnology.
- b) **EXPORTS:** There are neither official statistics nor estimates on exports of microbial biotechnology products. However, Morocco exports alcoholic beverages, dairy products, and processed products that may contain microbial biotech-derived food ingredients.
- c) **IMPORTS:** There are neither official statistics nor estimates on imports of microbial biotechnology products. Morocco imports microbial biotech-derived food ingredients, such as enzymes that are traditionally used in alcoholic beverages, dairy products, and processed products. Likewise, Morocco imports alcoholic beverages, dairy products, and processed products that may contain microbial biotech-derived food ingredients.
- d) **TRADE BARRIERS:** Not Applicable.

### **PART H: Policy**

- a) **REGULATORY FRAMEWORK:** To date, Morocco does not have a legislative or regulatory framework related to biotechnology, either for domestic production or imports of GE

commodities. However, other laws and regulations may cover microbial biotechnology and derived products. See *Plant Biotechnology*.

In 2014, ONSSA issued a [Code of Procedures](#) (link in French) for animal feed which states:

*“For additives derived from biotechnology techniques based on genetically modified organisms (GMO), an official commitment of the manufacturer confirming the total destruction of GMOs at the end of the manufacturing process.”*

- b) **APPROVALS:** Not Applicable.
- c) **LABELING AND TRACEABILITY:** Same as *Plant Biotechnology*.
- d) **MONITORING AND TESTING:** Same as *Plant Biotechnology*.
- e) **ADDITIONAL REGULATORY REQUIREMENTS:** Same as *Plant Biotechnology*.
- f) **INTELLECTUAL PROPERTY RIGHTS (IPR):** Same as *Plant Biotechnology*.
- g) **RELATED ISSUES:** Not Applicable.

#### **PART I: Marketing**

- a) **PUBLIC/PRIVATE OPINIONS:** Same as *Plant Biotechnology*.
- b) **MARKET ACCEPTANCE/STUDIES:** Not applicable.

#### **Attachments:**

No Attachments