

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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## Senegal

### Agricultural Biotechnology Annual

### 2017 West Africa Biotechnology Report

**Approved By:**

Joshua Emmanuel Lagos

**Prepared By:**

Jasmine Osinski and Fana Sylla

**Report Highlights:**

The Government of Senegal is in the process of approving a new biosafety law, which currently includes language for an expedited approval process. A draft regional biosafety law is pending approval by Economic Community of West African States members which reportedly allows for regional approval of GE products. Because reliable information is limited, many West Africans are not well informed about the issues involved with biotechnology. Gaining future market acceptance will depend on efforts to inform and educate the public about the safety and benefits of biotechnology products.

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### Section I. EXECUTIVE SUMMARY

The Government of Senegal (GoS) is in the process of approving a new biosafety law, which currently includes language for an expedited approval process. The new draft law must be approved by the Council of Ministries before going to Parliament for final approval. The GoS also recently issued a decree that modified the structure of the National Biosafety Authority which now includes two bodies: the Orientation Council and Executive Body. In 2015, West African Economic and Monetary Union (WAEMU) technical bodies finished the development of a draft regional biosafety law, and are waiting for the law to be approved by Economic Community of West African States (ECOWAS) members. This draft law reportedly includes language that allows for regional approval of genetically engineered (GE) products. Because reliable information is limited, many West Africans are not well informed about the issues involved with biotechnology. Gaining future market acceptance will depend on efforts to inform and educate the public about the safety and benefits of biotechnology products. This report on West Africa covers Senegal, Burkina Faso, Mali, Guinea, Niger, and The Gambia.

### Section II. PLANT AND ANIMAL BIOTECHNOLOGY

#### Chapter 1: Plant Biotechnology

##### Part A: Production and Trade

###### a) PRODUCT DEVELOPMENT

In Burkina Faso, for the last five years, the Institut de l'Environnement et de Recherches Agricoles (INERA) has been developing *Bacillus thuringiensis* (Bt) cowpeas to control the legume pest *Maruca vitrata*; the institute is currently conducting field trials and testing the GE product's effect on non-target organisms. The National Biosafety Agency believes that Bt cowpeas may be commercialized within two years, although other contacts believe the time frame is uncertain. In

2011, INERA tried to develop a GE sorghum product (sorghum ABS188) with higher levels of vitamin A, zinc, and iron, but it is not known if this effort has continued. The Consultative Group on International Agricultural Research believes that Bt cowpeas will be vital for the livelihoods of millions of people in the semi-arid regions of West and Central Africa. Burkina Faso is the third largest producer of cowpeas after Nigeria and Niger.

Sources noted that after local cotton ginning mills in Burkina Faso collectively agreed to stop the distribution of Bt cotton seeds during marketing year (MY) 2016/17 (please see Commercial Production section below), all research collaboration on GE cotton with Monsanto in Burkina Faso was suspended. This included research on a Stacked Bollgard II x Roundup Ready Flex (insect and herbicide tolerance) product.

In Mali, in 2011 the National Rural Economy Institute's Board of Directors authorized research on GE cotton in collaboration with Compagnie Malienne des Fibres Textiles; however, Post is not aware of any further developments.

Senegal, The Gambia, Niger, and Guinea are not conducting any GE plant research at this time.

#### b) COMMERCIAL PRODUCTION

From MY 2009/10 to MY 2015/16 Burkina Faso farmers planted Bt cotton seed that was developed by SOFITEX in partnership with Monsanto. Since MY 2016/17, according to Post contacts, local cotton ginning mills collectively agreed to stop the distribution of Bt cotton seeds due to its short fiber length, which apparently did not garner a high price on the international market. Sources believe that both farmers and local cotton ginning companies are supportive of agricultural biotechnology; however, they added that the introduction of a new Bt cotton variety would need to meet industry requirements.

Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso are not planting any GE commodities for commercial production at the present time.

#### c) EXPORTS

Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso do not export GE commodities.

#### d) IMPORTS

Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso have not approved any GE commodities for cultivation or importation for food, feed, or processing. The only country that has approved a GE product for cultivation is Burkina Faso, which approved Bt cotton seeds.

#### e) FOOD AID

Previous or current food aid recipient countries include Burkina Faso, The Gambia, Guinea, Guinea-Bissau, Mauritania, Niger, Mali, and Senegal. Any GE commodity or food derived from a GE commodity should be notified to the recipient country's government for approval.

#### f) TRADE BARRIERS

Currently, there are no biotechnology-related trade barriers.

### **Part B : Policy**

#### a) REGULATORY FRAMEWORK

##### **Burkina Faso**

In 2012, Burkina Faso adopted a new Biosafety Law to facilitate the research and commercialization of GE products. The National Biosafety Authority (NBA), which is under the Ministry of Higher Education, Scientific Research and Innovation, is the country's biotech authority and has two main functions: 1) approving the use, importation, or exportation of GE commodities and 2) approving the research of GE products, including confined field trials. The NBA includes two advisory bodies: the National Biosafety Scientific Committee (NBSC) and the National Biosafety Observatory (NBO). The NBSC has thirteen members from nine ministries (Ministries of Scientific Research, Secondary and Higher Education, Health, Defense, Environment, Agriculture, Animal Resources, Trade, and Justice) which specialize in various fields such as GE technology, environmental protection, and human and animal health, and three representatives from the NBA, the National Laboratory of Biosafety, and the Ethics Committee for Research. The NBSC evaluates dossiers for biotech products, and provides a recommendation to the NBA for approval. The NBO has 33 members including 19 from different ministries and 13 from civil society; membership also includes the NBA and the Social and Economic Council. It monitors the use of GE products in accordance with Burkina Faso's laws and regulations, and also raises awareness on agricultural biotechnology to the general public. NBO members have a mandate of three years (up to a maximum of six years).

In order to initiate the approval process for a GE product, an applicant must send a dossier to the NBA (as well as the Exchange Center for Biotechnology Risk Prevention), which according to the Biosafety Law will respond in 150 days. The NBA could request additional information during this process. If the NBA believes there is no significant risk for human and animal health, biodiversity, or the environment, it may utilize a simplified process that will expedite the time period for approval.

For more information on the 2012 Biosafety Law, please refer to the unofficial translation provided through the [GAIN Attaché Reports](#).

##### **Mali**

In December, 2008, Mali adopted its Biosafety Law; the main bodies include the National Competent Authority (NCA), the National Biosafety Committee (NBC), the National Focal Point / National Correspondent, and the Public Institutional Biosafety Committees (PIBC). Under the Ministry of the Environment, the NCA monitors and controls the implementation of the Biosafety Law, including approving GE products. The NCA is also in charge of approving GE research activities. The NBC provides recommendations to the NCA on whether to approve GE products and issues directives on how to implement biosafety regulations. These directives are informed by Specialized Commissions such as the Commission for Management and Risk Assessment, the Commission for Public Participation, and the Commission for Legal and Regulatory activities. The NBC is composed of a president (the Minister of Environment or his/her representative), a vice president (the Minister of Agriculture or his/her representative), and 37 members from various ministries as well as researchers, scientists, members of the general public, farmers associations, and the media. The National Focal Point oversees the Cartagena Protocol, facilitates the exchange of information between the NCA and other government bodies, and manages environmental issues. The PIBCs ostensibly include a variety of bodies that support the regulation of agricultural biotechnology; however, their function is not clear since there has been no decree to define their exact role.

In order to initiate the approval process for a GE product, an applicant must send a dossier to the NCA, which according to the Biosafety Law will respond in 90 days. The NCA could request additional information during this process. If the NCA believes there is no significant risk for human and animal health, biodiversity, or the environment, it may utilize a simplified process that will expedite the time period for approval.

A prior informed consent (PIC) or a written authorization from the NCA is required before importation, transit, confined use, release, and/or commercialization of a GE commodity or product derived from a GE commodity. This authorization is required for any GE product.

Sources noted that the Government of Mali has not officially nominated members to form an NCA, or possibly other regulatory bodies such as the PIBCs. It is unclear if the Biosafety Law is functional at this time.

## **Senegal**

In July, 2009 Senegal adopted its Biosafety Law and two decrees were issued in December, 2009 describing the function, mission, and organization of the two main bodies: the National Biosafety Authority (NBA) and National Biosafety Committee (NBC), both of which are under the Ministry of Environment. On May 19, 2017, the Government of Senegal issued a decree that modified the structure of the NBA by splitting it into two bodies: the Orientation Council (OC) and the Executive Bureau (EB), and in addition to the NBC added one new consultative committee: the Scientific and Technical Committee (STC).

The NBA is divided into two bodies: the OC and the EB. The OC advises and ensures that the EB's overall activities follow government policies and priorities. It also approves the organization of the

NBA, the rules of procedures, and the draft budget. The OC has nine members: six representatives from the Ministries of Economy and Finance, Environment, Agriculture, Fisheries, Livestock, and Scientific Research, one representative from the General Secretary of the Office of the President, one representative from the General Secretary of the Office of the Prime Minister, and one OC Chairman nominated by the President. The OC members have a term of three years (maximum of two terms). The EB, which is the competent authority on biotechnology, coordinates dossiers for GE products for cultivation or food, feed, or processing, provides a recommendation to the Minister of Environment for approval, and distributes notifications on those decisions. The EB includes an executive director who specializes in biotechnology and a permanent secretary, and includes 17 members from different ministries.

An additional ministerial decree is required to define the organization, composition, and function of the STC; this decree will also possibly redefine the organization and function of the NBC. In the meantime, the NBA will continue to be supported by the NBC, which is charged with scientifically evaluating dossiers (i.e., risk assessments for the importation, exportation, handling, transit, confined use, release or commercialization of GE commodities and or foods derived from a GE product) and providing a GE product approval recommendation to the NBA. The NBC currently has 30 members that include scientists, the private sector, and members of the general public.

Regarding the approval process, which currently follows the 2009 Biosafety Law, the Minister of Environment will provide a decision on a dossier based on the recommendation of the NBA; the law notes that the approval process could take 270 days. In addition, any person wishing to export a GE commodity or food derived from a GE product to Senegal must submit the request in writing to the NBA. The law notes that any person transporting GE products or foods derived from a GE product through the national territory to other countries should inform the NBA within a specified period and comply with national and international requirements for containment and transport. The NBA will provide a Prior Informed Consent (PIC) before the transit is approved.

The Government of Senegal is in the process of approving a new biosafety law, which reportedly includes language for an expedited approval process. The new draft law must be approved by the Council of Ministries before going to Parliament for final approval. NBA officials hope the new law will be approved within six months.

For more information on the 2009 Biosafety Law, which will remain active until the new biosafety law is formally passed by Parliament, please see this [GAIN Report](#).

### **Guinea, Niger, and The Gambia**

The Gambia and Niger each developed a draft biosafety law, but it has not been implemented. No information is available on Guinea at the present time.

### **Regional Initiatives**

In 2015, WAEMU technical bodies (includes experts from the Ministries of Environment, Agriculture, and Animal Resources and Fisheries from various member countries) finished the development of a draft regional biosafety law. WAEMU is seeking approval of this law through ECOWAS. This draft regional law allegedly includes language that allows for regional approval of GE products. Sources believe that the law currently states that if one ECOWAS member approves a GE product, other ECOWAS members have the option to formally recognize that decision. This would allow an approved GE product to be commercialized for food, feed, processing, or cultivation in another ECOWAS member economy without undergoing additional approval processes. Post contacts note that the regional biosafety law will be discussed in December, 2017 at the next ECOWAS annual meeting.

For more information, please visit [here](#).

#### b) APPROVALS

Burkina Faso approved Bt cotton seed for cultivation. Burkina Faso, Mali, Guinea, Niger, Senegal and The Gambia have not approved any other GE products for importation or commercialized production.

#### c) STACKED EVENT APPROVALS

No information available.

#### d) FIELD TESTING

Burkina Faso is conducting field tests on Bt cowpeas (please see Production section).

#### e) INNOVATIVE BIOTECHNOLOGIES

No information available.

#### f) COEXISTENCE

No information available.

#### g) LABELING

### **Burkina Faso**

The 2012 Biosafety Law notes that any GE product intended for commercialization in the national territory must be packaged and labeled to avoid any risks for the environment as well as human and animal health. The label should contain, “Produced on the basis of genetically modified organisms” or “Containing genetically modified organisms.”

### **Mali**

The 2008 Biosafety Law notes that any GE product or food derived from a GE product must be clearly identified and labeled specifying relevant traits and characteristics to ensure its traceability.

### **Senegal**

The 2009 Biosafety Law states that any “Genetically Modified Organism” or products derived from a GE commodity intended for direct human and animal consumption, processing, or introduction in the environment or national market must be packed and labeled. The label should contain, “Produced with Genetically Modified Organisms” or “Contains Genetically Modified Organisms,” in conformity with other additional standards defined by the competent national authority and other concerned bodies.

#### h) MONITORING AND TESTING

The Senegalese laboratory of Plant Biology at the Faculty of Science and Technology of the University Cheikh Anta Diop (UCAD) has been designated as the national reference laboratory for biosafety, which includes testing samples for GE products to support monitoring and surveillance at the border. However, according to contacts, the lab is not fully functional at the present time, and currently is not testing samples for GE products. In 2012 and 2017, the lab received new equipment, which was funded by WAEMU and the NBA.

Burkina Faso also has a biosafety laboratory, but it is unclear if this lab is fully functional or is being used to test samples collected at the border. Sources believe there are no official protocols for monitoring GE products in Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso.

#### i) LOW LEVEL PRESENCE POLICY

Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso do not have a policy on low level presence.

#### j) ADDITIONNAL REQUIREMENTS

Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso are signatories to an ECOWAS agreement (adopted in May, 2008) called Regulation C/REG.4/05/2008 on the Harmonization of the Rules Governing Quality Control, Certification, and Marketing of Plant Seeds and Seedlings in the ECOWAS Region. This agreement harmonizes all member country seed regulations concerning variety release, quality control, certification, and production, as well as “reciprocal recognition of national certification standards and labeling.” This regulation would also apply to GE seeds.

For additional information, please visit this [website](#). The agreement is available [here](#).

#### k) INTELLECTUAL PROPERTY RIGHTS (IPR)

Burkina Faso, Guinea, Mali, Niger, and Senegal are members of the African Intellectual Property Organization (OAPI), which includes 15 African French-speaking countries that are treated as one state in trademark law. There is no national trademark law for member states; therefore, it is not possible to obtain national registrations in these countries. Trademark protection is obtained via registration in OAPI. It is valid for 10 years from the date of application and renewable for the same period. Foreign applicants need a local agent. A non-legalized power of attorney is sufficient.

For additional information, please visit this [website](#).



l) CARTAGENA PROTOCOL

**Mali** ratified the Cartagena Protocol in September, 2003

**Burkina Faso** ratified the Cartagena protocol in November, 2003

**Senegal** ratified the Cartagena Protocol in January, 2004

**Niger** ratified the Cartagena Protocol in September, 2004

**Guinea** ratified the Cartagena Protocol in December, 2004

**The Gambia** ratified the Cartagena Protocol in June, 2004

m) INTERNATIONAL TREATIES/FORA

Mali, Burkina Faso, Guinea, The Gambia, Niger, and Senegal are members of ECOWAS, as well as the International Plant Protection Convention (IPPC) and the Codex Alimentarius (Codex). Senegal, Burkina Faso, Niger, and Mali are members of WAEMU.

n) RELATED ISSUES

None.

**Part C: Marketing**

a. PUBLIC/ PRIVATE OPINIONS

Post believes there is support for agricultural biotechnology in Senegal and Burkina Faso. In early 2017, the President of Senegal noted agricultural biotechnology as one tool for achieving food security solutions. The NBA in Burkina Faso believes there is a need to continue to educate the local populace on the benefits and safety of biotechnology. Its communication strategy currently includes distributing a booklet and other documentation in various local languages.

Because reliable information is limited, many West Africans are not well informed about the issues involved with biotechnology. Gaining future market acceptance will depend on efforts to inform and educate the public about the safety and benefits of biotechnology products.

b. MARKET ACCEPTANCE/ STUDIES

No information available.

**Chapter 2: Animal Biotechnology**

**Part D: Production and Trade**

a. PRODUCT DEVELOPMENT

Post is aware that Mali and Burkina Faso are developing a GE mosquito to prevent the spread of malaria. This is part of a project named “target malaria” funded by Bill and Melinda Gates Foundation. The Scientific Research Institute in Health in Burkina Faso and University of Sciences and Techniques in Mali are partners in this project.

For more information, please visit <http://targetmalaria.org/who-we-are/>

- b. COMMERCIAL PRODUCTION - No information available.
- c. EXPORTS - No information available.
- d. IMPORTS - No information available.
- e. TRADE BARRIERS – No information available.

### **Part E: Policy**

- a. REGULATORY FRAMEWORK  
The biosafety laws for Senegal, Burkina Faso, and Mali apply to animal biotechnology, although there may not be decrees or guidance on how it is specifically regulated. The draft biosafety laws for Niger and The Gambia both reference animal biotechnology. Post is not aware of any regulatory framework on animal biotechnology for Guinea.
- b. INNOVATIVE BIOTECHNOLOGIES – No information available.
- c. LABELING AND TRACEABILITY – No information available.
- d. INTELLECTUAL PROPERTY RIGHTS (IPR) - No information available.
- e. INTERNATIONAL TREATIES/ FORA - Senegal, The Gambia, Mali, Niger, Guinea, and Burkina Faso are members of the World Organization for Animal Health (OIE) and Codex.
- f. RELATED ISSUES – N/A

### **Part F : Marketing**

- a. PUBLIC/ PRIVATE OPINIONS  
Many West Africans likely have little to no knowledge of animal biotechnology.
- b. MARKET ACCEPTANCE/ STUDIES - No information available.

#### **References**

- Convention on Biological Diversity – <http://www.cbd.int/biosafety>
- Interstate Committee for Reducing Desertification in the Sahel (Comité permanent Inter-Etats de Lutte contre la Sécheresse dans le Sahel) - <http://www.cilss.bf>
- African Intellectual Property Organization (OAPI) <http://www.oapi.wipo.net>
- Economic Community of West African States (ECOWAS) [www.ecowas.int/member-states/](http://www.ecowas.int/member-states/)

- West African Economic and Monetary Union (WAEMU) - <http://www.uemoa.int>

### **Acronyms**

GE	Genetically Engineered
INERA	Institut de l'Environnement et de Recherches Agricoles
NBA	National Biosafety Authority
NBC	National Biosafety Committee
UEMOA/WAEMU	West African Economic and Monetary Union
ECOWAS	Economic Community of West African States