Tunisia

Agricultural Biotechnology Annual

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Report Highlights:
A draft legislation on Tunisia’s biotechnology regulations that was put together before the start of the Tunisian revolution has been indefinitely postponed. Approval of the proposed biotech law is not expected until a new constitution is adopted and the election of a new parliament in spring 2013. Meanwhile, imports of biotech products into Tunisia will continue to be handled in a similar manner to that of conventional agricultural products. FAS/Tunis continues to assist in building Tunisia’s biotechnology research capacity through exchange programs and technical workshops, when opportunities arise.
Section I. Executive Summary:

Tunisia still has no legal framework dealing with the introduction, use and marketing of agricultural biotechnology. New legislation on biotech products that was expected to be finalized and adopted by the Tunisian parliament before the end of 2010 has been indefinitely postponed. In 2011 Tunisia underwent a historic revolution that spread to several Arab countries and changed the picture of the Middle East and North African region. Today, Tunisia is in a recovery phase after the revolution and is trying to build democratic institutions and implement a new system of government through the writing of a new constitution. It is unlikely under the current environment and with the long list of priorities for the government that new biotech legislation would be reviewed or approved until the election of a new parliament in Spring 2013 and a new constitution is adopted.

Currently, there is no debate on the GMO in Tunisia since public awareness of this issue is very low. In the coming year, however, intense discussions concerning the pros and cons of the GMO are expected to take place, and would be likely influenced by the EU policy position regarding biotechnology issues. Meanwhile, imports of biotech products into Tunisia will continue to be handled in a similar manner to conventional agricultural products. Although Tunisian officials recognize the existence of GMO materials in imported animal feed products, the dependence of Tunisia’s agriculture on these imports as well as the increased international acceptance of GMO products have allowed the import of these biotech products to continue.

Tunisia’s agricultural biotechnology activities continue to be restricted to the research level, mostly covering applications related to plants, animals and insects. There is government support provided to several biotechnology research institutes that have emerged in Tunisia in recent years allowing the improvement of Tunisia’s understanding of biotechnology issues at the researchers’ level.

During the past few years, FAS/Tunis carried out several activities aimed at building close working relationships with key players dealing with biotechnology issues in Tunisia. Post sponsored several conferences and supported Cochran and Borlaug programs’ participants in biotech activities. Post also conducted successful outreach activity targeted at policy makers, opinion leaders, legislatures, and civil societies in Tunisia in order to help guide the process of establishing viable biotechnology legislation in the country.
Section II. Plant Biotechnology Trade and Production:

Tunisia's primary trading partners are France, Italy, Germany, Belgium, Luxembourg, and the Maghreb countries. In 2011, the U.S. was Tunisia’s seventh largest trading partner, with the U.S.-Tunisian trade declining by 4 percent, to $938 million, down from $977 million in 2010. Tunisia has been a net importer of agricultural products, with a negative food trade balance in the last two decades. Leading agricultural imports in 2011 were wheat ($520 million), corn ($267 million), vegetable oils ($465 million). Leading exports were olive oil and products ($287 million), fishery products, dates, and citrus. Tunisia is one of the world’s major exporters of olive oil, a fact that is largely overlooked as much of its production is exported in bulk to EU countries (Italy, Spain) to be refined, bottled, and marketed as exported from the EU.

In 2011, U.S. Agricultural exports accounted for 53 percent of all total exports to Tunisia. In 2011, U.S. agricultural exports reached a record high at $311 million, with corn oil, oilseeds, coarse grain, and wheat exports accounting for the bulk of these exports. Tunisia’s agricultural exports to the United States in 2011 totaled $86 million, of which olive oil accounted for $74 million. Tunisian olive oil export shipments enter the U.S. market with a preferential access under the framework of the General System of Preference (GSP). In 2011, the U.S. ranked as the second largest destination, after the EU market, for the Tunisian olive oil exports absorbing about 25 percent of Tunisia's olive oil exports.

Tunisia agricultural biotechnologies uses are limited to three domains of application: plants, animals and insects. The activities involving biotechnologies such as the production of GMOs and recombinant DNA are restricted to the structures of research. Field-testing and, a fortiori commercial use, are on hold pending the enactment of national biosafety regulations.

Concerning the trade, there is no segregation as both biotech and non-biotech products are handled the same way and no existing law restricts, controls or authorizes biotech products trade. A recent study published by the Tunisian Ministry of Health demonstrated that human alimentation in Tunisia was free of GMO while animal feed contains a high level of GMO principally imported corn and soybean meal.

Section III. Plant Biotechnology Policy:

Tunisia has been a signatory country of the Cartagena protocol since 2003. However, currently there is no legal framework dealing with the use and release of products of agricultural biotechnology in Tunisia. Two ministries are involved in GMO issues as the focal point, the Ministry of Agriculture and the Ministry of Environment and Sustainable Development. The Ministry of Health is also involved via the Agency for Sanitary and Environmental Controls of Imported Products, ANCSEP.

Tunisia is at a crossroads on biotechnology policy. Most of the Tunisian policy-makers see agricultural biotechnologies as useful in addressing the country’s chronic agricultural problems such as crop disease, weed control, and drought tolerance crops. A draft law currently under consideration would establish a legal framework for the importation, commercialization, and use of biotechnology in agriculture. However, this effort may be compromised by skepticism on the use of biotechnology, a reflection of Tunisia's close ties with Europe. The draft of Tunisia’s biosafety regulations is not yet a public document. However, it is reportedly made up of two laws (a draft law related to the confined use, deliberate release and commercialization of biotech products and a draft law related to the import and
transit of biotech products), three decrees and three ministerial orders. One of the main provisions of these draft regulations would be the obligation to apply for an authorization prior to importing biotech products into Tunisia. Several laboratories seems to have the potential to carry out GMO testing using PCR-based detection methods, once legislation is in place. It is worth noting that Tunisia is receiving technical assistance from the EU to establish its GMOs testing capacity and that the International Service for the Acquisition of Agri-biotech Application (ISAAA) is planning to open a regional Biotechnology Information Center (BIC) to be hosted by the ICARDA's office in Tunis. Concerning labeling, it should be noted that Tunisia published a decree in September 3, 2008 (Art. 7) that makes labeling mandatory for all foods products and food ingredients containing GMO.

On the research side, GOT implemented a fully supportive policy for Agricultural biotechnology. In 2008 a national laboratory for GMO detection and a research center to assess the risks of using GMO were established. Moreover, GOT’s encouragement of biotechnological research contributed to the development of the state of knowledge of Tunisian laboratories’ teams. Today, a dozen major institutes conduct biotech research. They are either institutes working under the umbrella of IRESA (Institution of Research and Higher Education) of the Ministry of Agriculture such as INRAT (Institut National de Recherche Agronomique de Tunisie) or under the jurisdiction of the Ministry of Scientific Research and Technology, such as the Center of Biotechnology in Sfax (CBS) or the Center of Biotechnology of Borj Cedria (CBBC). New molecular biology technologies as viral genome isolation, gene cloning, transformation methods and functional genomics are now established in these laboratories. Several agricultural biotechnologies either at the experimental stage or at the commercial stage, such as micropropagation techniques, are now used. The latter are widely used to generate disease-free or salinity tolerant planting material mainly for wheat, citrus, date palm and grapevine. FAS/Tunis maintains a close contact with all the above mentioned laboratories and regularly engages them in outreach activities and scientific exchange programs of mutual interest.

Section IV. Plant Biotechnology Marketing Issues:

There are no significant market acceptance issues related to the sale of biotech products in Tunisia due to the non-existence of GMO food-use on one hand, and the absence of strong consumer movements pushing trade-restrictive agendas on the other hand. However, it is mandatory to inform consumers when genetically engineered (GE) methods of production are involved. According to the September 3, 2008 decree, labeling of food products and food ingredients containing GE organisms is mandatory. However, this obligation is not sufficiently clear and does not provide details on the type of products involved, the percentage of GE material authorized and the authority in charge of the enforcement.

Consumers continue to be largely unaware of the controversial debate between proponents and opponents of biotech at the international level. The biotech debate has not yet reached the public arena although we see from time to time newspaper articles conveying the EU concerns about modern biotechnology. A recent local inquiry showed that only 4 percent of the Tunisians has heard about GMO before.

Who might be drawn to use GMOs in Tunisia?
Large scale farmers in Tunisia would be interested by GMOs since their adoption will reduce the costs brought by the use of pesticides and irrigation. Moreover the use of GM plants resistant to diseases, salinity or drought would be profitable considering that a reduction of the cost of treatments and an improvement of the yield would be obtained. However the question arises for the small-scale farming (less than 20 ha) which represents a majority of the total number of the farms in Tunisia. In such farm, cereal seeds are simply taken out of the previous harvest and no pesticide or herbicide treatments are applied because of their costs. Consequently the use of GMOs would be possible only through governmental support by subsiding transgenic seeds for example.

**Section V. Plant Biotechnology Capacity Building and Outreach:**

The FAS/Tunis office under an overall regional strategy supports local interest in biotechnology by developing several activities. Post activities have been focused on identifying key players and on advocating science-based biotech risk assessments and trade-friendly regulations. We have been successful in establishing relationships with key officials, some of whom are influential members of the National Biosafety Committee. AgTunis will continue promoting exposure and increased familiarity of Tunisian regulators and scientists with biotechnology.

**Outreach Activity: The Contributions of Plant Biotechnology in Confronting Climate Change**

In October 2010, FAS/Tunis, in cooperation with the Department of State, organized a well attended workshop targeted at 200 policy makers, opinion leaders, legislators, and civil societies in Tunisia in order to help guide the process of establishing viable biotechnology legislation in Tunisia. The successful workshop, presented by four U.S. experts from Cornell University, University of California Berkeley, and University of Nevada, addressed several issues related to the contributions of plant biotechnology in confronting climate change and focused on biotech role in addressing plant disease, mitigating global warming, and adapting crops to marginal soils. The successful event generated wide positive media coverage and gave the scientific community an opportunity to engage in the policy debate over various biotechnology subjects in Tunisia.

**Norman E. Borlaug Fellowship program**

In 2009, a Tunisian researcher from the Center of Biotechnology of Borj Cedria (CBBC) participated in June 2009 in a six-week training program at Oklahoma State University under the Norman Borlaug Program, this training should help in building Tunisia’s researcher capacity and to improve its knowledge of small grain production and to gain exposure to latest weed management practices. In addition the program will provide the opportunity for Tunisian scientists and policymakers to establish long-term contacts with U.S. scientists and apply the newly gained knowledge from U.S. laboratories to their research and development programs.

**The Cochran Fellowship Program**
Post implemented several Cochran programs in the last 10 years focusing on providing several key government officials with training courses in order to enhance their understanding of commercial and technical applications of U.S. agricultural biotechnology. This has helped prevent creating an anti biotech culture in Tunisia and imposing more restrictive measures on trade of biotech products.

Conferences and others activities

- Post sponsored several conferences and workshops which have led, among other outcomes, to supportive articles in local media. An article, for instance, posted in a widely circulated daily newspaper featured a headline mirroring the US position in using modern biotech to alleviate hunger and malnutrition.
- The Agricultural Specialist led a delegation of 10 Tunisian risk assessors to attend a 3-day risk assessment workshop in Morocco.
- Post placed a cleared op-ed in local media under the ambassador’s signature explaining reasons having led the U.S. to file a WTO case against the EU’s moratorium on approving agricultural biotechnology products.

Section VI. Animal Biotechnology:

Animal biotechnologies are at their early stages except for basic reproductive biotechnologies such as artificial insemination. Embryo transfer, although technically feasible, has not yet gained a significant uptake in the livestock sector.

Section VII. Appendix I
Following are the main regulations governing the import of (1) seeds and seedlings, (2) unprocessed food and feed, (3) consumer-oriented products and (4) GMO labeling:

(1) Seeds and seedlings imports must comply with Decree # 2002-621 dated March 19th, 2002. This decree sets rules to import all seeds and seedlings. Apart from the phytosanitary aspects, the main provisions of this decree are the obligation for the importer to apply for a license, to have a minimum storage capacity and to keep records for its inventories. Seeds and seedlings covered by this decree are: potato, citrus, strawberry, pulses, horticultural seeds, forages, cereals and vine.

(2) Unprocessed food and feed: the existing sanitary and phytosanitary rules do not refer to the biotechnology aspects. In Tunisia, phytosanitary control of imported food and feed is regulated by the Law # 92-72 dated August 3rd 1992, while sanitary control is covered by the Law # 99-24 dated March 9th 1999. The enforcing authorities are the DGPCQPA (Direction Generale de la Protection et du Controle de la Qualite des Produits Agricoles) and DGSV (Direction Generale des Services Veterinaires), both departments within the Ministry of Agriculture.

(3) Consumer-oriented food products: Apart from the sanitary and phytosanitary laws that apply also to this type of product, consumer-oriented products must comply with the decree dated July, 1985 validating Tunisian standard NT 15-23 (1983) which applies to pre-packed food commodities labeling and presentation. The enforcing authority is the DQPC (Direction Generale de la Protection du Consommateur) of the Ministry of Commerce.

(4) Food labeling: Article 8 of the decree published by the Ministry of trade in 2008 concerning labeling of Foods and Food Ingredients oblige producers to mention clearly in the label GMO presence in the product. This article is not clear since there is no GMO production in Tunisia.