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AGRICULTURAL BIOTECHNOLOGY ANNUAL

Mexico's Agricultural Biotechnology Sector

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Report Highlights:

Mexico continues to gradually implement its biotechnology regulatory system. One of their most recent measures was the announcement on March 6, 2009, of the guidelines for the conservation and protection of Mexican corn varieties. With these guidelines in place, the Secretariat of Agriculture (SAGARPA) has initiated the process of authorizing permits for experimental field trials of genetically modified corn varieties. Industry sources expect SAGARPA's response to the 25 applications for permits submitted to date in October 2009.

Section I. Executive Summary:

Mexico is the United States' second most important agricultural trading partner. Since 2002, U.S. agricultural and food exports to Mexico have been increasing at an annual rate of almost 10 percent. The North American Free Trade Agreement (NAFTA) has enabled the United States and Mexico to take advantage of their complementary trading relationship for agricultural products. In 2008, for example, Mexico was the second largest destination for U.S. agricultural products with total agricultural, fishery, and forestry exports valued at \$16.0 billion, surpassing total 2007 exports of \$12.3 billion. In addition, U.S. agricultural trade with Canada and Mexico has more than tripled

since NAFTA's implementation in 1994. The United States supplied more than 70 percent of Mexico's total agricultural imports due in part to the price advantage and preferential access that U.S. products now enjoy. In particular, grains, oilseeds, meat, and related products make up about three-fourths of U.S. agricultural exports to Mexico in terms of value. Mexico does not produce enough grains and oilseeds to meet internal demand, so the country's food and livestock producers import sizable volumes of these commodities to make value-added products, primarily for the domestic market. Cotton, wheat, poultry and dairy products are also strongly represented in the trade mix.

Mexico's biotechnology regulatory system is considerable and includes: a developing regulatory framework, research institutions along with prominent researchers, a government commission dedicated to coordinating biotech policies, and a proactive private sector organization that promotes the positive use of biotechnology as well as shares and disseminate scientific knowledge to the policy makers and the community. Despite the fact that Mexican farmers were among the first in the world to adopt biotech crops for experimental purposes - over 13 years ago - biotech derived crops are not cultivated commercially in Mexico.

The development of agricultural biotechnology in Mexico was interrupted in 1998 due to a ban on the experimental planting of genetically modified corn because there was no specific regulatory framework for this technology. After the publication of the Law on Bio-safety of Genetically Modified Organisms (2005) and its Operational Rules (2008), the only pending law was to establish measures for the conservation and protection of Mexican races of corn. On March 6, 2009, the GOM published a decree that guarantees and details the specific guidelines for the Special Régime for the Protection of Corn. With these guidelines in place, the Ministry of Agriculture (SAGARPA) has initiated the process of authorizing permits for experimental field trials of genetically modified corn varieties (See MX9006).

According to official sources, biotech firms have submitted 25 requests for experimental field trials of genetically modified corn varieties to be used in various municipalities of northern Mexico: Baja California, Sonora, Sinaloa, Chihuahua, and La Comarca Lagunera (Coahuila, Durango and Tamaulipas). The applications were submitted to SAGARPA through the National Service of Agro-Alimentary Health, Safety and Quality (SENASICA) and the Inter-Ministerial Commission on Bio-Security and Genetically Modified Organisms (CIBIOGEM). Private companies expect the GOM's response for their applications no later than October 2009.

Section II. Biotechnology Trade and Production:

Mexico is the second largest market for U.S. agricultural exports, and the U.S. is the largest importer of Mexican agricultural products, with two-way trade well in excess of U.S. \$25 billion annually.

With the full implementation of NAFTA on January 1, 2008, virtually all of the major barriers to agricultural trade (tariffs, quotas, investment, etc.) were removed. In the case of grains and oilseeds, for example, a high degree of market integration has been reached due to the removal of tariffs on U.S. corn exports to Mexico.

There are strong linkages between U.S. grain/oilseed farmers and Mexican hog/poultry producers since producers in Mexico rely heavily on U.S. feedstuffs to meet their country's growing demand

for meat. There are also investments in U.S. baking and tortilla industries by Mexican companies.

As a result of this high level of market integration, Mexico continues to import significant amounts of biotech-derived agricultural goods from the United States. Mexico's imports of feed grains, oilseeds, and related products have increased roughly 150 percent since NAFTA's implementation, and it is expected to exceed 20 million metric tons (MMT) in 2009. In the case of corn, the import volume for 2008 reached 9.7 MMT and that included 168,000 MT of cracked corn, which consists of broken or ground kernels and is used for animal feed. Additionally, Mexico imported 3.5 MMT of soybeans and 343,000 MT of cotton in 2008. It is expected that U.S. corn and other biotech-derived commodities exports will continue to increase over the next few years.

Despite the fact Mexican growers were among the first in the world to adopt biotech crops for experimental purposes, Mexico continues to focus on cultivating non-biotech derived crops.

However, with the publication of the 2008 decree that details the specific guidelines for the Special Régime for the Protection of Corn, SAGARPA has initiated the process of authorizing permits for experimental field trials of genetically modified corn varieties.

It should be noted that Mexico is not a food aid recipient country at the moment, nor is it likely to be one in the near future.

Information on transgenic crops and their planted areas continues to be very difficult to obtain because the Mexican government does not maintain official statistics on these crops, and industry information tends to be limited. However, according to SAGARPA preliminary information, Mexico planted 215,945.68 hectares (ha) of biotech crops, for experimental purposes in the 2008 calendar year, mainly cotton (142,862 ha) and soybeans (73,093.68 ha). For 2009, the Confederation of Mexican Cotton Associations (CMCA) estimates that only 43,000 hectares of genetically modified cotton will be planted, mainly in the states of Baja California, Sonora, La Laguna region (Coahuila and Durango) and Chihuahua. This reduction reflects a significant increase in input costs, particularly fuel and fertilizers, which should led to cotton producers to select alternative crops (See MX9023).

Genetically modified cotton has proven to be an important tool in controlling insect infestations and reducing the number of pesticide sprayings. Insect-protected (*Bt*) cotton is effective in controlling the pink bollworm and cotton bollworm, two of the seven predominant insects that plague cotton in Mexico. Industry sources state that the use of engineered cotton has showed positive results overall. Farmers who adopted transgenic varieties experienced higher effective yields (due to less pest damage), higher revenue and lower pesticide costs. According to SAGARPA, since transgenic cotton was planted from 1996-2006 there was no need to use pesticides and experts predict that approximately 454,000 liters of pesticides did not need to be applied due to transgenic cotton. These factors more than compensate for higher prices that would be paid for insect-protected seeds and as a result the net profit increased during that time. It has been particularly useful in the La Laguna region (Durango and Coahuila) where these pests constitute the major threat to cotton production and insect-protected cotton has been widely adopted in these states:

Other biotech crops that are currently in field trials in Mexico are:

- Roundup Ready Alfalfa (herbicide tolerant);
- Roundup Ready Flex Cotton (enhanced herbicide tolerant); and,

- Bollgard II/Roundup Ready Flex Cotton (enhanced insect resistant/herbicide tolerant).

All biotechnology crops that are being tested in Mexico were developed in the United States and have passed through the U.S. regulatory system. A list of those biotechnology crops that have been approved for human consumption can be found in Appendix A. Unlike the United States, Mexico does not make a distinction between food and feed approval, but rather approves both for human consumption.

Mexico does allow for field-testing of biotechnology crops under the Bio-safety Law (see Biotechnology Policy section below). A list of the biotechnology crops that have been approved for field-testing can be found in Appendix B.

Section III. New Technologies:

As already mentioned, Mexico has a considerable biotechnology infrastructure already in place along with excellent research institutions and researchers. Among them could be mentioned the following: the International Maize and Wheat Improvement Center (CIMMYT), which is home to the father of “The Green Revolution,” Dr. Norman Borlaug, and Mexico’s National Autonomous University (UNAM), which houses several noteworthy biotechnology researchers. The Center of Research and Advanced Studies of the Technical National Institute (Cinvestav) also has a department of Biochemistry and Biotechnology. Cinvestav researches areas of modern biology such as biochemistry and molecular biology, which is used in biological systems for agriculture and industry. Their research is primarily focused on discovering new applications in recent crops and also ancestral and endemic cultivations in Mexico, such as agave, prickly pear (nopal), amaranth, and of course, corn. The National Laboratory of Genomics for Biodiversity at CINVESTAV in Irapuato, Mexico aims to understand how plants modify the architecture of their roots to improve their ability to obtain nutrients from the soil.

In addition, Mexico’s National Academy of Science (MNAS) has a Biotechnology Committee. According to MNAS, there are hundreds of research institutions (in various Mexican institutions) that employ more than 750 researchers, who devote their primary efforts to developing projects and solving various biotech issues. There is also a major effort to form specialists in these areas.

However, MNAS has recognized that despite the significant human and physical infrastructure that Mexico has in the biotech area, it has lagged behind research in different areas that affect the development of biotechnological applications, such as the production of transgenic animals and more recently, sequencing projects and genome analysis.

Consequently, both official and private sources have recognized that the development of new animal technologies is in the beginning stages, at best. Moreover, as the center-of-origin for corn and because of the historic and cultural significance of corn in Mexico, much of the biotechnological debate in Mexico has focused on biodiversity and corn.

Section IV. Biotechnology Policy:

Biotechnology policy activities in Mexico are coordinated by the Inter-Ministerial Commission on Biosecurity and Genetically Modified Organisms (CIBIOGEM). Created in 1999, CIBIOGEM

coordinates federal policy related to the production, exportation, movement, propagation, release, consumption, and the advantageous use of GMOs and their products and by-products. However, CIBIOGEM does not have an enforcement role. It is comprised of Mexico's National Council of Science and Technology (CONACYT), and representatives of six Secretariats: Agriculture, Environment and Natural Resources, Health, Treasury, Economy, and Education. CIBIOGEM is run by an Executive Secretary who, according to the Bio-safety Law, is nominated by CONACYT after consultations with the member Secretariats and is approved by the President.

Among the considerable biotech regulatory frameworks that Mexico has (please see [MX5061](#)), the most relevant is the comprehensive Bio-safety Law, which was passed in February 2005 ([MX6050](#)). This law addressed a number of legislative gaps for the regulation and commercialization of biotech derived products. Moreover, it defined the respective responsibilities and jurisdictions of the Mexican Secretariats and agencies that monitor and/or enforce biotechnology regulations. In general terms, the enforcement and responsibility of biotechnology policies and regulations within the GOM are as follows:

- **The Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA)** - The role of SAGARPA is to analyze and assess, on a case-by-case basis, all of the potential risks to animal, vegetal, and aquatic health, as well as to the environment and biological diversity, posed by activities carried out with genetically modified organisms (GMOs), based on the risk assessments and results reports drafted and filed by the interested parties. Moreover, SAGARPA is responsible for deciding what GMO related activities are permissible, and issues permits for those activities. SAGARPA also provides guidelines and parameters for all GMO-related experiments and activities. These activities include: field trials, pilot program releases, commercial release, marketing, and import and export of GMOs. Finally, SAGARPA monitors the effects that accidental or permitted release of GMOs may cause to animal, vegetal, aquatic health, and biological diversity.
- **The Secretariat of Environment and Natural Resources (SEMARNAT)** - SEMARNAT analyzes and assesses, on a case-by-case basis, the potential risks that activities carried out with GMOs may cause to the environment and biological diversity. These analyses are based on risk assessment studies and results reports drafted and filed by the interested parties. In addition, SEMARNAT is responsible for permitting and licensing activities that involve the environmental release of GMOs and is charged with providing guidelines and parameters for such activities. SEMARNAT also monitors the effects on the environment or biological diversity that may be caused by the accidental release of GMOs. In instances when SAGARPA has primary responsibility for the experiment or activity, SEMARNAT is still responsible for issuing a bio-safety opinion prior to SAGARPA's resolution.
- **The Secretariat of Health (SALUD)** - The role of SALUD is to assure the food safety of biotechnology-derived agricultural products destined for use as medicines or human consumption. SALUD also assesses, on a case-by-case basis, studies drafted and filed by interested parties on the safety and potential risks of GMOs authorized under the Biosafety Law.

Mexico's Bio-safety Law does not require labeling for packaged foods and feeds. However, under this Bio-safety Law, labeling is required of seeds (including corn) for planting (Provision 101).

Labeling information should include the fact that the planting seeds are genetically modified, the characteristics of the acquired genetic combination, implications with regard to special conditions and growing requirements, and changes in reproductive and productive characteristics.

For stacked events, the Mexican Ministry of Health requires that more information about bio-efficacy be submitted before additional approval is granted for food safety clearances. For environmental release, SAGARPA also requires that additional information on a stacked event be submitted before it grants approval. It is important to note that SAGARPA, not SEMARNAT, issues approval for environmental release, although SEMARNAT does render an opinion beforehand to SAGARPA through the inter-agency process.

As a complement to the Bio-safety Law, SEMARNAT published on March 19, 2008, in Mexico's Federal Register the Implementation Rules ("Reglamento") of this law (see [MX8048](#)). Industry sources have stated that the "Reglamento" has contributed to the harmonization and consolidation of the previously fragmented nature of Mexico's biotech policies. Moreover, it regulates the study, experimental planting, and potential sale of GMOs. Along with its 64 articles and 30 pages, the Implementation Rules lays out the basis for biotechnological research and creates monitoring mechanisms for importing genetically engineered products and for growing GM crops.

Mexico's Bio-safety Law as well as and its Implementation Rules are designed to prevent and control the possible risks from the use and application of biotechnology products to human health, vegetal and animal health, and environmental well-being.

The objective of these implementing regulations is to supplement the Bio-safety Law by:

1. Authorize relevant agencies to issue environmental release permits for GMOs;
2. Define the notification process for the confined use of GMOs organisms;
3. Create internal bio-safety committees;
4. Define which GMOs should be regulated by the Secretariat of Health for the purpose of human health protection;
5. Define how bio-safety information is to be publicly disseminated through the National System of Bio-safety.

In general, the "Reglamento" regulates:

- Any activity that modifies the genetic material of an organism;
- Permits for the environmental release of GMOs for experimental purposes;
- Permits for the environmental release of GMOs in stage previous to the commercial liberation (Pilot Tests);
- Permits for the environmental release of GMOs with commercial purposes;

Also, the "Reglamento" clarifies and defines a number of procedures and expectations, such as:

1. Specifics on inspection, surveillance activities, and security measures;
2. Guidelines on how sanctions will be administered in the event that the law is broken;
3. Requirements, time frames, and procedures for the appropriate Secretariats to use when issuing GMOs permits and notifications;
4. A framework for an appeals process for the relevant Secretariats.

As already mentioned, on March 6, 2009, the GOM announced in the Mexican Federal Register a decree that modifies and revokes some provisions of the Operational Rules of the Bio-safety Law for Genetically Modified Organisms (see MX9006). It could be considered as the most relevant biotechnology policy-related event in the last year.

The modifications specify the guidelines for protecting native corn species, which constitute the Special Régime for the Protection of Corn, as required by the Bio-safety Law (see [MX8048](#)). With the Special Régime for the Protection of Corn in place, SAGARPA has initiated the process of authorizing permits for the experimental field trials of corn varieties through its agency SENASICA.

SENASICA officials have stated that 25 requests for experimental field trials of genetically modified corn have been submitted. The trails would be located in areas throughout northern states, including: Baja California, Sonora, Sinaloa, Chihuahua, La Comarca Lagunera (Coahuila, Durango) and Tamaulipas.

The experimentation will test four types of transgenic events: tolerance to herbicides, resistance to insects and a combination of herbicide and insect resistance and drought resistance. SENASICA official pointed out that a total of 12 Stack events were included in these 25 requests for experimental field trials.

The experimental corn field trial authorization process includes a public consultation period, as is specified in the Bio-safety Law. Consequently, SENASICA released a public consultation period for the 25 applications, mentioned above. As a result, 198 comments were received from different Non-Governmental Organizations (NGO's) and other interested groups. Of them, only one was in favor of approving the experimental corn field trials. However, official sources have stated the majority of the comments that were against experimental corn field trials did not include bio-safety measures or recommendations, which could be implemented if the applications were approved. It should be noted that these measures are required by the Bio-safety Law.

Some of the arguments used by NGO's include the following:

Genetic Contamination: NGO's point out that the so-called "experimental field trials" would not really be experimental since it will take place in the open field where contamination by pollen, insects and wind will inevitably occur, in the short or medium term. Consequently, it would open an era of legalized GMO contamination as has been seen in more than 150 cases of "accidental" contamination in 42 countries. Studies in Mexico and other countries also show that pollution variables are more than the distances of the alleged "isolation". However, following reports from private developers, NGO's have insisted that in Mexico (the center of origin for corn) none of these types of pollution will occur. Ironically, these groups emphasize that pollen, wind and insects will behave according to the biotech firm's protocols, although risk factors would be multiplied by thousands because of the enormous corn diversity in Mexico as well as pollinators and geographical characteristics.

Also, some researchers from the National Institute of Forestry, Agriculture and Livestock Institute (INIFAP) have cautioned about the unknown genetic effects on the diversity of Mexico's native corn

("teocintle") and its wild relatives during the medium to long term, due to genetic contamination.

The biotechnology debate in Mexico has centered almost exclusively on corn and the issue of biodiversity. Corn has a special place in the Mexican culture and is considered part of the national patrimony. This stems from various factors including Mexico being the center of origin for corn and a reservoir of genetic diversity. Corn is the most important crop in Mexico with about half the arable land dedicated to its production. Much of this corn production is associated with small-scale subsistence-production that, in turn, is associated with a traditional way of life – a way of life that, before NAFTA, was highly regulated and protected. Due to these factors, biotechnology in Mexico has focused on protecting not only the national patrimony but also the traditional farming lifestyle, which has come under threat since NAFTA brought in more competition and a gradual lifting of governmental protection.

Bans in Other Countries: In contrast with the GOM's allegedly irresponsible actions, NGO's have mentioned that Germany decided to ban genetically modified corn on April 14, 2009. The decision affected MON 810 seeds, which is the only modified corn currently allowed in German soil. NGO's have pointed out Germany's decision, which is the same conclusion as seven other EU countries, was for safety concerns.

Minimum Impact on Yields: NGO's have also quoted a report from the Union of Concerned Scientists (UCS) - in March 2009 - that states that despite 20 years of research and 13 years of commercialization, genetic engineering has failed to significantly increase U.S. crop yields. The report evaluates the overall effect genetic engineering has had on crop yields in relation to other agricultural technologies. It reviewed two dozen academic studies on corn and soybeans, the two main genetically engineered crops grown in the United States. Based on those studies, the UCS report concluded that genetically engineering herbicide-tolerant soybeans and herbicide-tolerant corn has not increased yields. Insect-resistant corn, meanwhile, has improved yields only marginally. The report found that the increase in yields for both crops over the last 13 years was largely due to traditional breeding or improvements in agricultural practices.

In response to these arguments, biotechnology companies have stated that genetically engineered corn field trials will be conducted under strict bio-safety measures. One of the measures is to set up a distance of at least 200 meters from transgenic corn plantings and other crops. Various crops will be sowed in this parameter (i.e., wheat, cotton or sorghum), and it will act as a physical barrier in order to avoid pollination by wind, which has been highly questioned.

Another measure these companies will implement is to plant genetically modified corn at different dates according to the hybrid corn varieties in the region. This genetically modified corn will also be planted at 500 meters from the hybrid varieties. A difference of 10 or 12 planting days would avoid pollination and at the same time, ears of corn could be pulled (i.e., removing the possibility of issuing pollen). Although the latter option may be best, it would be an extreme measure that can destroy the grain rather than help it. Once the experimental corn field trial concludes, the harvest will be destroyed.

According to Agro-Bio, a private organization that represents the major biotech firms in Mexico, the first experimental field trials could take place September 2009 in the states of Sonora and Sinaloa.

These trials would be sown at research centers in plots of no more than two acres each with the bio-safety measures that SAGARPA requires. Eight experiments are expected to take place in the same number of parcels in Sonora resulting in a total of 16 hectares. However, official sources have stated that the initial approvals could be released only as early as October 2009.

In November, various companies expect to continue their field trials in Sinaloa while other states in the north, such as Baja California, Chihuahua and “La Laguna region” (Coahuila and Durango) and Tamaulipas, will start in 2010. Agro-Bio stated that these northern states have more knowledge and expertise for cultivating corn, and it will be possible to compare the genetically modified corn varieties performance and its adaptability versus the conventional hybrid corn.

In addition, biotechnology industry representatives have stated that the authorities intend to allow experiments with transgenic corn to be carried out first in the northern states, where there is less biodiversity and the connection between farmers and corn is not as strong.

Based on the Bio-safety Law, any transgenic seed in Mexico has to go through three different phases: the experimental stage, a stage previous to the commercial release (Pilot Tests) and the commercial stage.

Agro-Bio anticipates the pilot test stage will incur extra expenses: technology investment (seeds), research team involved in evaluation reports, and the farmer’s income since the test will have to be conducted in an open field. The estimated expenses of this stage would be between U.S. \$300 and 400 million dollars. These companies expect to demonstrate that there would be no environmental damage and that genetically modified corn varieties can reduce production costs and obtain higher effective yields (due to less pest damage).

The main biotech companies estimate that they will be able to sell genetically modified corn varieties in 2012, once they pass the experimental stage and the pilot test. However, SENASICA officials have stated that selling genetically modified corn in Mexico could take a longer period of time (four to five years) based on international experience and Mexico’s legal framework.

According to Agro-Bio, seven international development firms (BASF, Bayer, Dupont, Syngenta, Monsanto, Dow and Pioneer) and more than 200 Mexican companies expect to market genetically engineered corn in the next couple of years. Likewise, corn production is expected to increase between 6 and 7 MMT, which is equivalent to the volume of losses due to pest’s attacks every year. Agro-Bio estimates that Mexico’s market of genetically modified seeds is worth approximately 2.8 billion pesos (roughly U.S. \$207.5 million).

On June 22, 2009, SAGARPA published in Mexico’s Federal Register, a notice cancelling the Mexico’s Official NOM-056-FITO-1995, which had established the phytosanitary requirements for the importation, domestic shipment and establishment of field trials with organisms that have been manipulated by genetic engineering. The cancellation of NOM-056 took effect on June 23, 2009, (see MX9040). The notice states that NOM-056 is no longer necessary due to the recent publication of the Bio-safety Law (March 18, 2005). However, implementing the regulations in the Bio-safety Law needs additional official standards to be developed in accordance with the legislation. It should be noted that with the publication in 2005 of the Bio-safety Law and its Operational Rules in 2008, it

was only a matter of time before the cancellation of NOM-056-FITO-1995.

Another relevant biotechnology policy-related event was the recently created Technical and Scientific Committee for Genetically Modified Organisms on June 22, 2009. The main objective of this Committee is to support SAGARPA in the analysis of petitions and notices related to GMOs, in accordance with the Bio-safety Law (see MX9041). With the announcement of the Scientific-Technical Committee, Mexico continues to gradually complete the steps needed to fully implement the Bio-safety Law. According to official sources, this Committee will allow greater certainty regarding the governmental scientific and technical requirements for the controlled planting of GMOs so that producers and the industry can more effectively plan their investments in biotechnology.

Also, Mexico's Bio-safety Law states that centers of origin for native corn species are off limits to biotech corn plantings. According to CIBOGEM officials, the National Commission for the Knowledge and Use of Biodiversity (CONABIO) and the National Institute of Forestry, Agricultural and Animal Research (INIFAP) have been working on a map of the country showing the boundaries of centers of origin. It is unclear when this map will be completed.

Although Mexico still prohibits the planting of GM corn, a few Mexican corn farmers may already have started to plant GM varieties. In September 2008, SENASICA announced that it had detected approximately 70 hectares of GM corn planted in the Mexican state of Chihuahua. In January 2009, the Secretariat of the Commission for Environmental Cooperation (CEC) received a citizen submission from several agricultural and environmental organizations asserting that the GOM is not effectively enforcing its environmental laws concerning the control, inspection, and investigation of gene flow. The CEC Secretariat is not a court, but it is empowered to produce a factual record regarding citizen submissions on enforcement matters. SENASICA officials have stated they have finished with the technical investigation in Chihuahua, and the case has been transferred to the Mexican Penal Authorities in order to continue the legal process.

Organics Law

The Organic Products Law was published in the "Diario Oficial" on February 7, 2006. This law establishes additional regulations for the use of biotech-derived food products. There are three specific areas where this law regulates biotech-derived products:

1. Provision 27 of the Organics Bill states that the use of all materials, products, and ingredients or inputs that come from, or have been produced with, genetically modified organisms are prohibited in the entire productive chain of organic products;
2. The law also prohibits the use of substances or forbidden materials referred to in provision 27, which alters the organic characteristics of the products; and
3. The bill establishes that SAGARPA may impose a fine of as much as \$700,000 pesos (roughly U.S. \$67,000) on a firm or individual that is found guilty of violating the law.

Since the Organic Products Law was published, the GOM's involvement in this sector has increased significantly. As mandated in this law, the National Counsel for Organic Production (CNPO-

Consejo Nacional de Producción Orgánica) was established in 2007 with the participation of producers, processors, importers/distributors, universities, government entities and certifiers to act as consultants for SAGARPA on organic production and commercialization issues. From 2006 - 2008, SAGARPA developed the “Regulations for the Organic Products Law” with support from the SEMARNAT, SALUD and the Secretariat of the Economy. Even though the regulations have been completed, and they still have not been officially published in Mexico’s Federal Register. In order for Mexico to advance their regulatory process, the regulations must be published.

Cartagena Protocol

In 2002, the Mexican Senate ratified the Cartagena Protocol on Bio-safety (CPB). This ratification helped insure final congressional approval of the Bio-safety Law in February 2005, as Mexico was obligated under the CPB to pass domestic legislation in order to harmonize its domestic laws with its international obligations.

Section V. Marketing:

In general, Mexican consumers, producers, importers, and retailers continue to be disengaged from the biotechnology debate with the latter opting to let industry trade associations do any significant lobbying, which may be necessary. Moreover, Mexican consumers are more concerned with price and quality than the source of their food. Thus, concerns both real and assumed, about the potential environmental impact of genetically modified foods continues to be the luxury of wealthy-country consumers. However, Mexicans do draw a distinction between biotechnology and genetically modified corn. Many, across the socio-economic spectrum, are concerned about the integrity of Mexico’s native corn species. For Mexicans, corn is a symbol of their heritage, so acceptance of this technology may well be tied to protecting this native plant.

Section VI. Capacity Building and Outreach:

Mexico continues to harmonize its regulatory approach to agricultural biotechnology with its NAFTA partners through the North America Biotechnology Initiative (NABI). NABI is a forum for information exchange and for high-level policy discussion on biotechnology issues with Mexico, the United States and Canada. The focus is to identify and solve issues of common interest as well as to identify areas for further cooperation. This forum not only helps Mexico identify and address regulatory gaps, but also promotes a trilateral harmonized approach to agricultural biotechnology regulations. Under NABI, for example, Mexican officials of CIBIOGEM are having bi-monthly conference calls with their counterparts in the United States and Canada (i.e., USDA, EPA, and FDA). The main objective of these conference calls is to exchange information and experiences about issues of common interest on agricultural biotechnology, such as new events to be authorized or the harmonization of regulations.

Under NABI, the CIBIOGEM Executive Secretariat participated actively in the technical coordination and logistic support of the workshop “Experimental Release (The Field Trial Evaluations) of GM Corn in Mexico: Experience Exchange and Communication”, which was held October 27-29, 2009 in the city of Guadalajara, Jalisco. Also, there was a reunion of Trilateral Technical Regulators conducted on October 30-31, in the same city.

The GOM co-organized, with the Food and Agriculture Organization of the United Nations (FAO), an international conference on biotechnology called the Agricultural Biotechnologies in Developing Countries. This conference will take place in Guadalajara, Mexico, November 2-5, 2009, and will be co-sponsored by the International Fund for Agricultural Development (IFAD). The main objectives of the conference are: to empower developing countries to make informed decisions about the application of appropriate biotechnologies, and to assist developing countries in expanding their national biotechnology strategies and capacities in the wider context of research for development, eradication of hunger and alleviation of poverty.

Participation at the conference will be by invitation only. Participants at the conference will be from: delegations of Member States of the FAO; from the United Nations and its specialized agencies; other intergovernmental organizations; international non-governmental organizations and international civil society organizations; the conference Steering Committee as well as invited speakers and panelists at the conference.