

USDA Foreign Agricultural Service

# GAIN Report

Global Agricultural Information Network

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**Date:**

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## **Philippines**

### **Agricultural Biotechnology Annual**

#### **Philippine Biotechnology Situation and Outlook**

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**Report Highlights:**

The Philippines continues to be a regional leader in biotech research and commercialization, as well as a model for science-based and thorough GE regulatory policy. GE corn has been on sale in the country since 2003 and comprised 28 percent of planted corn area in 2013. The Philippine government recently cited the successful propagation of GE corn over the past decade (with no environmental or health issues whatsoever) as the reason the country is now self-sufficient in the grain. Additionally, with Golden Rice and Bt eggplant, the Philippines is poised to be the first Southeast Asian country to commercialize locally developed GE crops. The success of the Philippines in these food security efforts has attracted attacks from domestic and international anti-GE groups, culminating in a widely criticized 2012 lawsuit postponing final commercial approval of the already completed Bt eggplant field trials, as well as the destruction of a Golden Rice field trial in 2013 by activist groups. According to academia, industry and local government sources, the Bt eggplant case and the vandalism of the Golden Rice tests have galvanized local stakeholders to coordinate educational outreach activities to promote the safe and responsible use of biotechnology.

## **Section I. Executive Summary:**

Philippine rules governing biotechnology crop regulations are widely recognized as science-based, thorough, and transparent. To ensure human, food, feed, and environmental safety, the regulatory regime requires that risk assessments be conducted in accordance with internationally accepted bodies such as the Cartagena Protocol on Biosafety, the Codex Alimentarius Commission, the Organization for Economic Co-operation and Development, and the UN Food and Agriculture Organization.

GE corn has been on sale in the country since 2003 and comprised 28 percent of planted corn area in 2013. The Philippine Department of Agriculture's Bureau of Plant Industry recently cited the successful propagation of GE corn over the past decade (with no environmental or health issues whatsoever) as the reason the country is now self-sufficient in the grain. Six transformation events (TEs) in 10 GE corn varieties are approved for commercial production. While Bt corn is the only GE crop approved for commercial production in the Philippines, Golden Rice and Bt eggplant have completed most testing requirements.

The Philippines' prominence in biotechnology, and particularly the food security and consumer benefits that would flow from the commercialization of Golden Rice and Bt eggplant, has made the country a target for domestic and international anti-biotech groups. This opposition in early 2012 culminated in a lawsuit challenging the safety of Bt eggplant. The resulting court decision, which ordered a halt to field tests, has been widely criticized by prominent Philippine scientists, farmers and student groups. Although many analysts have labeled the ruling 'toothless' because the field trials had already been completed, and because the court did not criticize the existing regulations or block commercialization, the decision appears to have slowed the final approval process. According to industry sources, the 2012 ruling on Bt eggplant likely encouraged anti-biotech activists to file additional suits and destroy a Golden Rice field trial in 2013. Academia, industry and local government sources confirm that as a result of the Bt eggplant case and the vandalism of the Golden Rice tests, local stakeholders have become galvanized to coordinate educational outreach activities to promote the safe and responsible use of biotechnology.

## **Section II. Plant Biotechnology Trade and Production:**

### **a) PRODUCT DEVELOPMENT:**

Development of the fruit and shoot borer-resistant eggplant (Bt eggplant) is led by the Institute of Plant Breeding of the University of the Philippines at Los Banos (IPB-UPLB). The Bt eggplant technology was donated by the Maharashtra Hybrid Seed Company to UPLB through a royalty-free sublicense agreement. Even though the widely criticized 2012 ruling by a Philippine court ordered the halting of field trials, Bt eggplant remains poised to be the first locally developed GE crop to be commercialized. All relevant field tests had been completed prior the court ruling and respondents to the case have all filed petitions seeking a reversal of the decision.

According to the Philippines Department of Agriculture (DA), as of April 14, 2014, analysis of data generated from the field trials indicate that Bt eggplant provides higher marketable yield potential and lower percentage EFSB-damaged fruits compared to the hybrid check. The results also suggest that Bt eggplant presents a potentially more environmentally benign alternative to the current excessive use of

chemical insecticide in local eggplant production, according to the DA.

For the betacarotene-enriched rice or Golden Rice (GR) project, there were four multi-location field tests when activist groups vandalized an ongoing trial in August 2013. While the level of betacarotene was reported to be high and stable across seasons and locations, more research is necessary to increase yield to a level that is comparable to popular rice varieties, according to the DA. The GR project is being developed by the Philippine Rice Research Institute (PhilRice), and is supported by the Bill and Melinda Gates Foundation through a grant to the International Rice Research Institute. There is also support from the Rockefeller Foundation, USAID, and the Philippine DA Biotechnology Program. Only after the nutritional evaluations are satisfied will approval for commercial propagation proceed.

Bt cotton trials were completed in the second half of 2011. Field evaluation of agronomic performance, adaptability and bio-efficacy were conducted in five locations in Luzon and Mindanao in 2013. In May 2014, the bio-efficacy of the Bt cotton hybrids against the cotton bollworm were reaffirmed. Bt cotton is being developed by the Philippine Fiber Development Administration (PFIDA), formerly the Cotton Development Administration.

As of May 2014, the IPB-UPLB project on the ring spot virus-resistant papaya with a delayed ripening trait completed its first field test. Preparations for the 2<sup>nd</sup> field test and its eventual varietal registration are underway.

**b) COMMERCIAL PRODUCTION:**

The following table shows overall GE corn areas and how they relate to overall corn production and area harvested. Overall corn production and area harvested in 2013 declined 0.4% and 1.2%, respectively, compared to their 2012 levels. Aggregate GE corn area declined marginally (0.2%) from 729,000 hectares in 2012 to 728,000 hectares in 2013. In 2013, GE corn accounted for over 28.4% (728,000 hectares) of all Philippine corn areas (estimated at 2.6 million hectares), marginally higher than 28.12% ratio in 2012.

The decline in overall corn production and area in 2013, as well as the area harvested for GE corn, is largely attributed to several devastating typhoons that passed through the Philippines during the year. Despite the decline, 2013 corn yields were slightly higher at 2.88 tons per hectare, compared to the 2012 average yield of 2.86 tons per hectare. Philippine DA officials announced the country was corn self-sufficient in 2013, and attribute the continued improvement in local corn yields to the use of superior GE corn seeds.

<b>Corn: Philippine Production, Area Harvested &amp; Yield 2003-2011</b>			
	2011	2012	2013
National Production (KMT)	6971	7407	7377
Total Area (KHas.)	2544	2594	2564
Yield (MT/Has.)	2.74	2.86	2.88
Total Area Growth (%)	1.82	1.94	-1.16
GE Corn Area (KHas.)	685	729	728
% GE/Total Area (Has.)	26.93	28.12	28.40
GE Area Growth (%)	26.33	6.43	-0.19

Source: Bureau of Agricultural Statistics and Bureau of Plant Industry

As of April 16, 2014, there were 6 transformation events (up from five in the previous annual report) approved for commercial production in the Philippines. Approvals for production are valid for five years and renewable for another five years. All approved GE crops are in ten yellow corn varieties approved for feed and food use.

According to the International Service for the Acquisition of Agri-Biotech Applications (ISAAA), in 2013, the Philippines was the 12<sup>th</sup> largest country globally in area planted to GE crops. Since its introduction in 2003, GE corn has been planted in over 4 million hectares in the Philippines. GE stacked-trait corn (including pyramided traits) has dominated biotech corn propagation since 2003, accounting for roughly 75 percent of all GE corn planted. The following table is based on updated data from the BPI.

<b>GM Corn Adoption by Event</b>				
CY 2003 - 2013				
Year	Bt	RR	Stacked	Total
2003	10,769	-	-	10,769
2004	59,756	-	-	59,756
2005	50,009	-	-	50,009
2006	96,800	26,493	4,580	127,873
2007	122,613	120,023	71,279	313,915
2008	81,752	51,485	214,503	347,740
2009	48,038	46,809	232,156	327,003
2010	40,235	8,690	493,599	542,524
2011	21,205	15,038	649,130	685,373
2012	21,693	20,947	686,810	729,450
2013	-	168,450	559,628	728,078
<b>Total</b>	<b>552,870</b>	<b>457,935</b>	<b>2,911,685</b>	<b>3,922,490</b>

Source: Bureau of Plant Industry

c) EXPORTS:

There remains to be no GE crops exported by the Philippines.

d) IMPORTS:

Philippine imports of GE crops and by-products continued to expand in 2013, making an important contribution to the country's national food supply and food security. U.S. exports of these products to the Philippines grew 2% to roughly \$767 million from the \$755 million-level in 2012. The following is a breakdown of U.S. exports of GE crops and products to the Philippines from 2011 to 2013:

<b>CY US Exports to the Philippines (In Thousand \$)</b>			
	2011	2012	2013
Soybean Meal	315,401	598,733	605,500
Feeds & Fodders	91,802	83,701	39,200
Soybeans	35,571	24,654	24,600
Sweeteners	55,685	30,226	53,300
Coarse Grains	818	3,489	24,000
Cotton	19,943	8,612	13,500

Vegetable Oil*	6,644	4,995	6,600
Soybean Oil	1,277	828	200
TOTALS	527,141	755,238	766,900

\* excluding Soybean oil group

Source: U.S. Bureau of Census Trade Data

e) **FOOD AID RECIPIENT COUNTRIES:**

The Philippines is a consistent food aid recipient (Food for Progress) and there have been no issues related to biotechnology that impede the importation of food aid commodities.

**Section III. Plant Biotechnology Policy:**

a) **REGULATORY FRAMEWORK:**

Philippine biotechnology regulations are well respected for their thoroughness, and are looked upon as a model by other developing countries. The biotechnology regulatory regime is embodied in the DA's Administrative Order No. 8 (DA-AO8) issued in April 2002. To ensure human, food, feed, and environmental safety, DA-AO8 requires science-based risk assessments be conducted in accordance with internationally accepted bodies such as the Cartagena Protocol on Biosafety, the Codex Alimentarius Commission, the Organization for Economic Cooperation and Development, and the Food and Agriculture Organization of the UN.

DA-AO8 derives legal basis from the Philippine Plant Quarantine Law of 1978, the Agricultural and Fisheries Modernization Act of 1997, existing mandates of the Bureau of Animal Industry and Fertilizer and Pesticide Authority, and Executive Order No. 340 of 1990 (which creates the National Committee on Biosafety of the Philippines or NCBP).

The Bureau of Animal Industry (BAI) evaluates feed safety while the Bureau of Agricultural and Fishery Products Standards handles food safety concerns. Quarantine and environmental issues fall under the responsibility of the Bureau of Plant Industry (BPI) while the Fertilizer and Pesticide Authority handles applications of pest protected plants. A unique feature of Philippine regulations is the conduct of a parallel review by the Scientific and Technical Review Panel (STRP), an independent body of experts from academia and the local scientific community.

Following are the 4 types of permits that DA-AO8 issues:

1. Application to Field Test (Annex I)
2. Application to Release for Propagation (Annex II)
3. Application for Importation for Direct Use (Annex III)
4. Petition for Delisting (Annex IV)

The application/approval process for each permit is provided at the end of this report (Annex I-IV).

Permits to import for contained use fall under the purview of the NCBP. The NCBP is composed of several agencies including the DA (as a member), and is chaired by the Secretary of the Department of Science and Technology (DOST). More on the NCBP is provided in the Section on the Cartagena Protocol on Biodiversity (CPB).

The DA-Office of the Undersecretary for Policy & Planning is responsible for crafting, implementing, and oversight of the overall regulatory regime and biotech policy, in consultation with the NCBP. Draft policies are referred to the DA Secretary for approval. The DA also coordinates biotech regulatory activities and interacts with a scientific multidisciplinary group – the Biotechnology Advisory Team, comprised of respected scientists.

BPI is the lead agency in regulating GE crops, drawing scientific support and advice from the NCBP, the other concerned agencies, and the STRP.

**b) APPROVALS:**

The links to the relevant approval registries are provided below:

**Approval Registries**

<b>Name</b>	<b>Subject</b>	<b>Dated</b>
ANNEX I	<a href="#">Approval registry for the importation of regulated articles for direct use as food and feed or for processing</a>	13-May-14
ANNEX IA	<a href="#">Approval registry for the importation of combined trait products for direct use as food, feed and for processing</a>	30-Jan-14
ANNEX II	<a href="#">Approval registry of regulated articles for propagation</a>	16-Apr-14
ANNEX IIA	<a href="#">Approval registry for propagation of combined trait products</a>	16-Apr-14
ANNEX III	<a href="#">List of Regulated Articles for Importation for Direct Use Requiring a Declaration of GMO Content</a>	Dec. 15, 2011
ANNEX IV	<a href="#">Approval Registry of Regulated Articles for Field Trial</a>	6-Nov-13
ANNEX V	<a href="#">Registry of unrenewed regulated articles</a>	30-Jan-14

Source: Bureau of Plant Industry

**c) FIELD TESTING:**

Refer to Annex IV in the APPROVAL REGISTRIES Table.

**d) STACKED EVENT APPROVALS:**

Refer to Annex IA and Annex IIA in the APPROVAL REGISTRIES Table.

**e) ADDITIONAL REQUIREMENTS:**

After the transformation event has been assessed and approved by the BPI, seed registration is still required with the National Seed Industry Council under the BPI.

**f) COEXISTENCE:**

There is currently no Philippine policy on coexistence with non-GE crops, and there are no rules in place or proposed on coexistence.

**g) LABELING:**

Currently, there are no labeling requirements for GE food products. In its “Draft Guidelines on Labeling of Prepackaged Foods Derived from or Containing Ingredients from Modern Biotechnology,” the PFDA indicated that it will not require labeling for GM packaged foods. The PFDA position is

largely based on the Codex Alimentarius standards on labeling as described in the “Compilation of Codex Texts Relevant to Labeling of Foods Derived from Modern Biotechnology.” The PFDA in late 2013 issued a statement attesting to the safety of GE and GE-derived foods, adding that GE foods were substantially equivalent to conventional counterparts.

For imported bulk commodities, Philippine regulations require shipments to be accompanied by a “Declaration of GMO Content” signed by the following: the responsible officer from the originating country, an accredited laboratory, the shipper, and/or the importer. The DA maintains that the declaration is a part of its food and environment safety regulations, and that it brings the Philippines into compliance with Article 18.2 of the Cartagena Protocol on Biosafety or CPB (i.e., Handling, Transport, Packaging and Identification Requirements for Living Modified Organisms for Contained Use and Environmental Release). Since its implementation, Post is not aware of any trade-related disruption as a result of this requirement. A sample form of this declaration follows:

**Declaration of GMO Content**

The shipment may contain a GM ingredient:  
 Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, list the probable transformation events.

Present	To be filled up by the PQS Officer	
	In the Approval Registry	Not in the Approval Registry
_____	_____	_____
_____	_____	_____
_____	_____	_____

[Signature]  
 Plant Quarantine Officer

[Signature]  
 Responsible Officer from the Country of Origin/Accredited Laboratory/Importer/Shipper

Source: Philippine Department of Agriculture

On the issue of halal certification of GE food products, standards have been liberalized. Foods derived from GE products are now eligible for halal certification, according to the amended Philippine National Standard or PNS 2067/2008 Amd 01:2011. Previously, the PNS for Halal Food did not allow halal certification of GE foods. Currently, only the National Commission for Muslim Filipinos is authorized to accredit Halal certification providers in the Philippines.

h) TRADE BARRIERS:

There are no known biotechnology-related trade barriers to U.S. exports.

i) INTELLECTUAL PROPERTY RIGHTS (IPR):

There are no plant patents in the Philippines. The country achieved compliance with its obligations under the WTO-TRIPS agreement on June 2007 with the passage of Republic Act 9168, otherwise known as the Plant Variety Protection Act of 2002 (PVPA).

Under the PVPA, holders of PVP certificates have the right to authorize production or reproduction, conditions for the purpose of propagation, offer for sale, sell or market, and export or import the varieties that they have developed. These rights also extend to harvested material resulting from the unauthorized use of their protected varieties – except if the use is by small farmers. Their rights also cover derived varieties (or those varieties predominantly derived from the initial variety that is being protected). Provisional protection may be provided to breeders, entitling them to some remuneration from the time the application is published until the granting of the certificate of PVP. In cases of infringement, the holder of the PVP certificate may petition the regional trial court for relief. As with other intellectual property rights laws, the local courts are relied upon for enforcement.

Under the PVPA, farmers are accorded the traditional right to save, use, exchange, share or sell their farm produce of a protected variety, except when the sale is for the purpose of reproduction under a commercial marketing agreement. The exchange and sale of seeds among farmers is on the condition that these are reproduced and replanted on their own lands.

j) CARTAGENA PROTOCOL RATIFICATION:

The Philippine Senate on August 14, 2006, adopted Senate Resolution No. 92 or the “Resolution Concurring in the Ratification of the Cartagena Protocol on Biosafety (CPB) to the UN Convention on Biological Diversity.” The CPB ratification follows the March 2006 issuance of Executive Order No. 514 adopting the National Biosafety Framework, which was the interim implementing mechanism of the CPB.

The NCBP issues guidelines and standards on risk assessment, environmental impact assessment, socio-economic, ethical and cultural assessments. The NCBP oversees the implementation of the NBF as well as coordinates and harmonizes efforts and activities of the various concerned agencies and departments. The Head Secretariat of the NCBP also acts as the National Focal Point of the Philippine Biosafety Clearing House.

Consultations from various stakeholders are currently being done to develop the Philippine position in relation to the COP MOP 7 in Korea on Sep. 29-Oct. 3, 2014.

k) INTERNATIONAL TREATIES/FORA:

The Philippines actively participates in international biotechnology events including Codex Alimentarius meetings as well as the Asia Pacific Economic Cooperation’s (APEC) High Level Policy Dialogue on Agricultural Biotechnology (HLPDAB). The HLPDAB serves as a forum for member economies to exchange information and achieve consensus on the importance of biotechnology to agricultural productivity, the environment and food security within the Asia-Pacific region and the need to put in place policies that facilitate development of biotechnology and open trade in agricultural biotechnology products. Filipino scientists and experts often are invited as speakers in international biotechnology fora including APEC seminars.

The 2014 APEC-HLPDAB will be held in Beijing, China on September 16, 2014 and the Philippines

has signified its usual participation. In addition, Philippine delegates will also be participating in an APEC Workshop (Agricultural Biotechnology Life Cycle) on September 14-15.

The Philippines will be the host-venue of the 2015 APEC annual meeting.

l) RELATED ISSUES:

The following is a link to the DA's biotechnology webpage:

[www.biotech.da.gov.ph](http://www.biotech.da.gov.ph)

m) MONITORING AND TESTING:

Monitoring by the BPI of GE crop propagation is handled by the BPI's Post Approval Monitoring group. The permit to propagate GE crops carries a stipulated provision that requires the technology developer to undertake insect resistance management practices (if the approved event is Bt), and/or weed resistance interventions if the event involved is glyphosate-tolerance.

On May 8, 2012, the DA issued Memorandum Circular No. 3 (MC No. 3) or the New Directive on Insect Resistance Management in Bt corn. Effective September 1, 2012, MC No. 3 implements the bag-in-a-bag structured refuge strategy by requiring all technology developers and seed developers to package 20% non-Bt corn seeds inside the larger Bt corn seed bag. Testing of the refuge-seeds prior to commercial distribution is conducted by the BPI.

On February 2014, the Philippine DA issued Memorandum Circular No. 2 (MC No. 2) "Enhancing the Insect Resistance Management (IRM) Strategy for Bt Corn Targeting Asian Corn Borer (ACB)". MC No. 2 updates refuge strategies and specifies roles of concerned agencies. The following is a link to MC No. 2:

[http://biotech.da.gov.ph/upload/MC\\_IRM\\_BTCorn\\_signed.pdf](http://biotech.da.gov.ph/upload/MC_IRM_BTCorn_signed.pdf)

n) LOW LEVEL PRESENCE POLICY:

In early 2009, the Philippine DA approved Administrative Order No. 1 (AO No. 1) adopting Annex 3 to the Codex Plant Guideline (i.e., "Food Safety Assessment in Situations of Low-Level Presence of Recombinant-DNA Plant Material in Food") for the conduct of food safety assessment in situations of low-level presence (LLP) of recombinant-DNA plant materials in food and feed. AO No. 1 likewise directs the DA policy and regulatory office to clarify issues and formulate guidelines to implement the LLP policy. To date, no implementing guidelines have been issued.

#### **Section IV. Plant Biotechnology Marketing Issues:**

a) MARKET ACCEPTANCE:

Local farmers are generally supportive of GE crops and other technologies that provide higher incomes. Increasingly more aware, farmers using conventional varieties are asking for greater access to GM corn seeds. However, there are pockets of resistance and there are a few provinces that have ordinances that ban or restrict the cultivation or use of GE crops and products.

b) PUBLIC/PRIVATE OPINIONS:

Environmental activist groups and several nongovernmental organizations are at the forefront of the anti-GE campaign in the Philippines. Though unconfirmed, they reportedly obtain funds from foreign sources. These groups are not against any specific GE plant or product, nor with the intended use or trait(s) of the GE crop, but are against the technology in general. Academics describe their resistance as “ideological” in nature. Over the past years, eminent scientists, university presidents, and current and former officials have criticized efforts to block biotech, particularly since the court ruling ordering a halt to field testing of Bt eggplant. After the 2012 court ruling blocking Bt eggplant field tests, an ongoing Golden Rice field trial was violently destroyed in August 2013 by activist groups.

Some stakeholders attribute the progress toward commercialization of Bt eggplant and Golden Rice as the main reasons for the intensified propaganda efforts by anti-biotech groups. The string of events in 2012 and 2013 has brought biotechnology into the limelight, and has galvanized stakeholders to increase their educational and outreach efforts.

c) **MARKETING STUDIES:**

Not applicable.

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

a) **ACTIVITIES:**

Building on successful programs from past years, Post launched a biotech educational campaign from September 26-October 2, 2013. The campaign featured a prominent U.S. scientist and engaged primarily with the Philippine House of Representatives (PHOR), academia, the Philippine DA, media, and local farmer groups in municipalities with existing anti-GE ordinances.

Parallel to this outreach, Post worked with local biotech advocacy partners and the State Department to organize a GE educational workshop for broadcasters from a network of Philippine DA-supported community radio stations. This program, which leveraged additional funds from local partners, gave broadcasters a science-based perspective in order to report on biotech issues for a mainly agricultural audience.

On October 23-25, 2013, over a thousand corn farmers from all over the country converged in Tagaytay City for the 9<sup>th</sup> National Corn Congress. The DA Secretary expressed full support for the farmers’ right to choose what technology to adopt. The FAS Agricultural Counselor, among others, also gave opening remarks.

The Philippines and the U.S. are signatories to a 2012 Science and Technology Agreement (RP-U.S. S&TA). On May 16, 2014, a US-RP Joint Committee Meeting under the RP-U.S. S&TA was held. The meeting set the stage for further engagement and bilateral working groups were formed under several priority areas, including biotechnology and food security.

Working closely with NTPMD/OASA, from July 6-12, 2014, Post organized a 7-man delegation from the PHOR to visit the U.S. for a biotechnology educational tour starting in St Louis, MO and culminating with USDA meetings in Washington DC on July 11. Prior to meeting with USDA, the Philippine Embassy in Washington organized a panel discussion with like-minded agencies/countries (July 10).

Other crop biotechnology capacity building activities in 2014 included the participation of a key scientist involved in the Philippine GR project in the 2014 Biotechnology Literacy Project, a science communications “boot camp” event held at the University of Florida in Gainesville, FL. The participant also proceeded to Washington DC for meetings with the U.S. FDA.

Post also closely worked with the NTPMD/OASA and the University of Missouri (MU) in reaching out to prospective participants for the 2014 Biotech Regulation Immersion Course.

**b) STRATEGIES AND NEEDS:**

Post is helping State develop a biotech outreach curriculum covering the basic science, safety, regulatory regime, and policy impacts of agricultural biotechnology, suitable for repeated presentation to non-technical audiences. Post is currently closely working with local partners from industry, academia and Philippine government in the development of the toolkit which is expected to be completed this year. These partners will simplify the science and augment it with modules related to biosafety and the Philippines’ regulatory structure. They will also create a module on the policy impact of biotech agriculture and on how biotech can support Philippines priorities such as rural development, food security, and environmental protection. The toolkit will be designed for general audiences but the curriculum will be flexible and appropriate for presentation to specific target groups (e.g. legislature, judiciary, local governments, media, etc.). Support for more local outreach utilizing the toolkit is expected to sustain momentum of current educational efforts by like-minded partners.

Regionally, a local corn industry group is spearheading efforts in promoting a GE corn research project in Burma. Burmese officials are reportedly very receptive to these initiatives, according to industry contacts. Post has coordinated with AgBangkok and NTPMD/OASA and the latter has expressed interest in coordinating with the local industry group.

**Section VI. Animal Biotechnology:**

**PRODUCTION AND TRADE**

**a) BIOTECHNOLOGY PRODUCT DEVELOPMENT:**

There are no Philippine GE-animals currently under development or expected to be in the market for the foreseeable future.

**b) COMMERCIAL PRODUCTION:**

Not applicable.

**c) BIOTECHNOLOGY EXPORTS:**

Not applicable.

**d) BIOTECHNOLOGY IMPORTS:**

Not applicable.

**POLICY:**

a) **REGULATION:**

There is currently no legislation and/or regulations in place covering the development, use, import, and/or disposal of livestock clones, GE animals, or products derived from these animals or their offspring in the Philippines.

b) **LABELING AND TRACEABILITY:**

Not applicable.

c) **TRADE BARRIERS:**

There are no known biotechnology-related trade barriers that negatively affect U.S. exports.

d) **INTELLECTUAL PROPERTY RIGHTS (IPR):**

The Philippines currently does not have, nor is it considering legislation to address intellectual property rights for animal biotechnologies.

e) **INTERNATIONAL TREATIES/FORA:**

Not applicable.

**MARKETING:**

a) **MARKET ACCEPTANCE:**

Not applicable.

b) **PUBLIC/PRIVATE OPINIONS:**

Not applicable

c) **MARKET STUDIES:**

Not applicable.

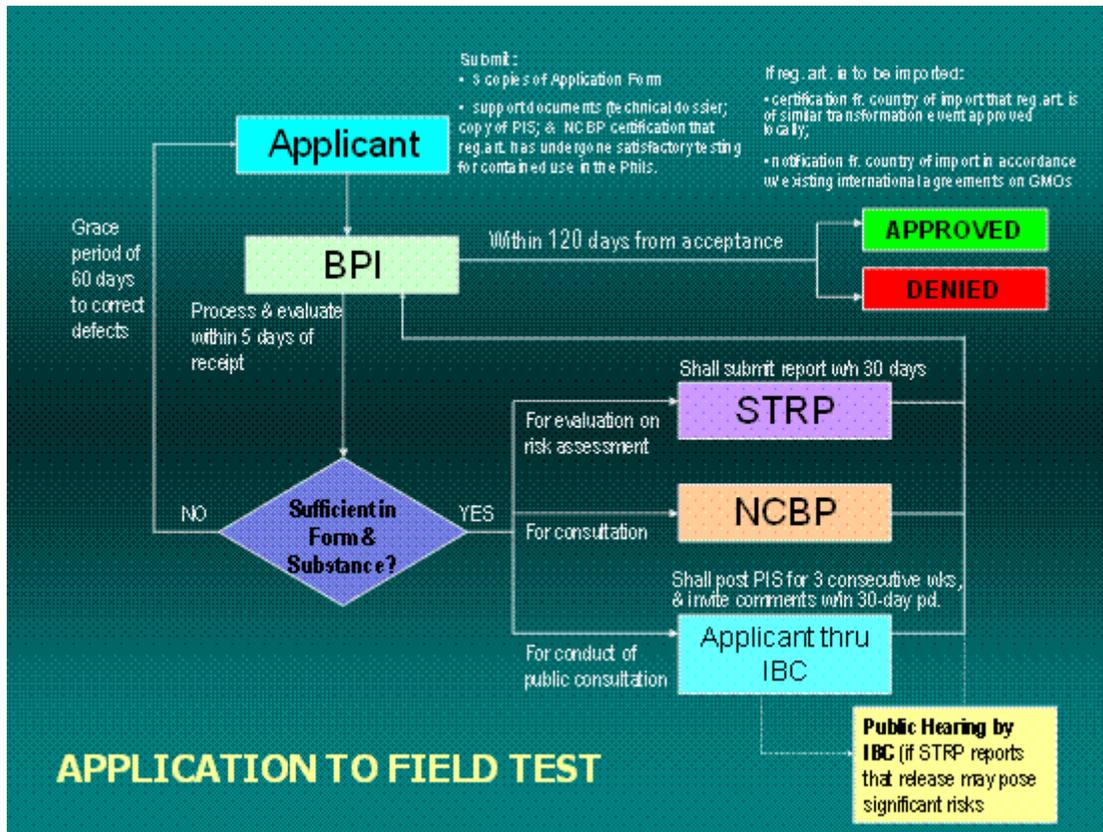
**CAPACITY BUILDING AND OUTREACH:**

a) **ACTIVITIES:**

Working with NTPMD/OASA, Post will be facilitating the travel of a local participant to the 2nd International Workshop for Regulation of Animal Biotechnology in Brasilia, Brazil, August 18-21, 2014. The workshop is a follow-up to the 1st International Workshop on the Food and Environmental Safety Assessment of Genetically Modified Animals, held in Buenos Aires, Argentina, in 2011.

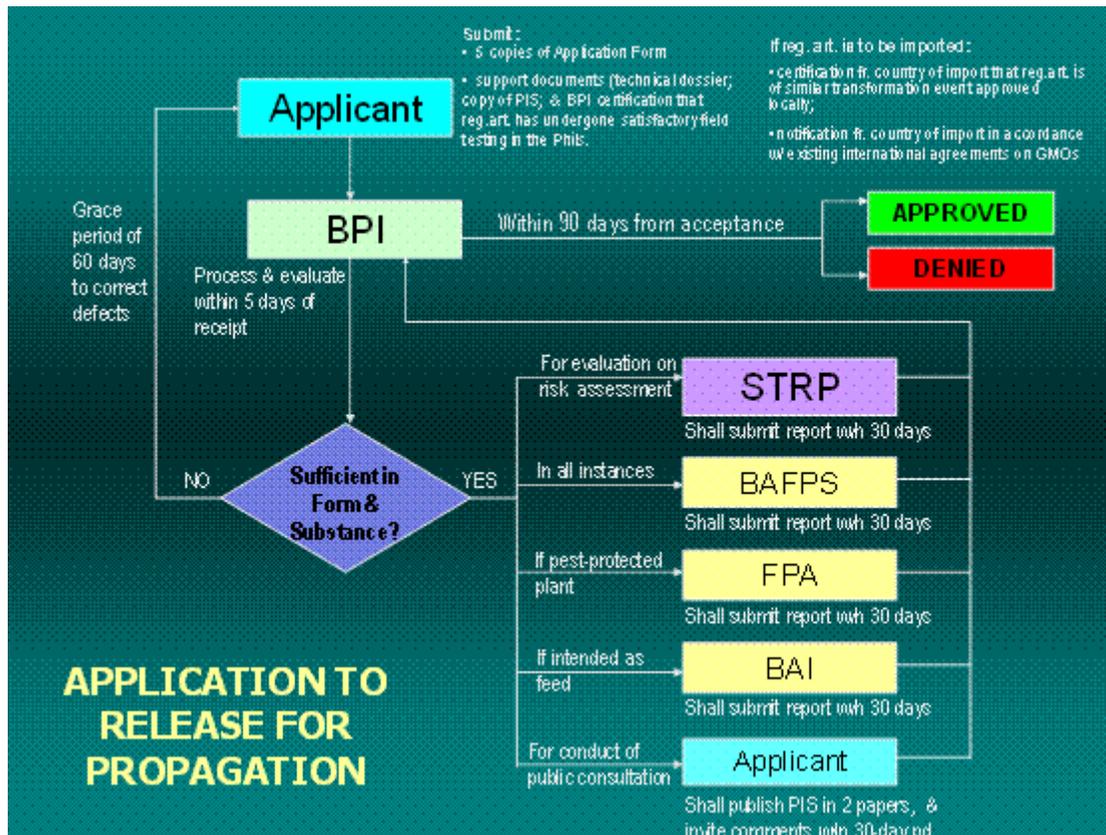
b) **STRATEGIES AND NEEDS:**

Not applicable.



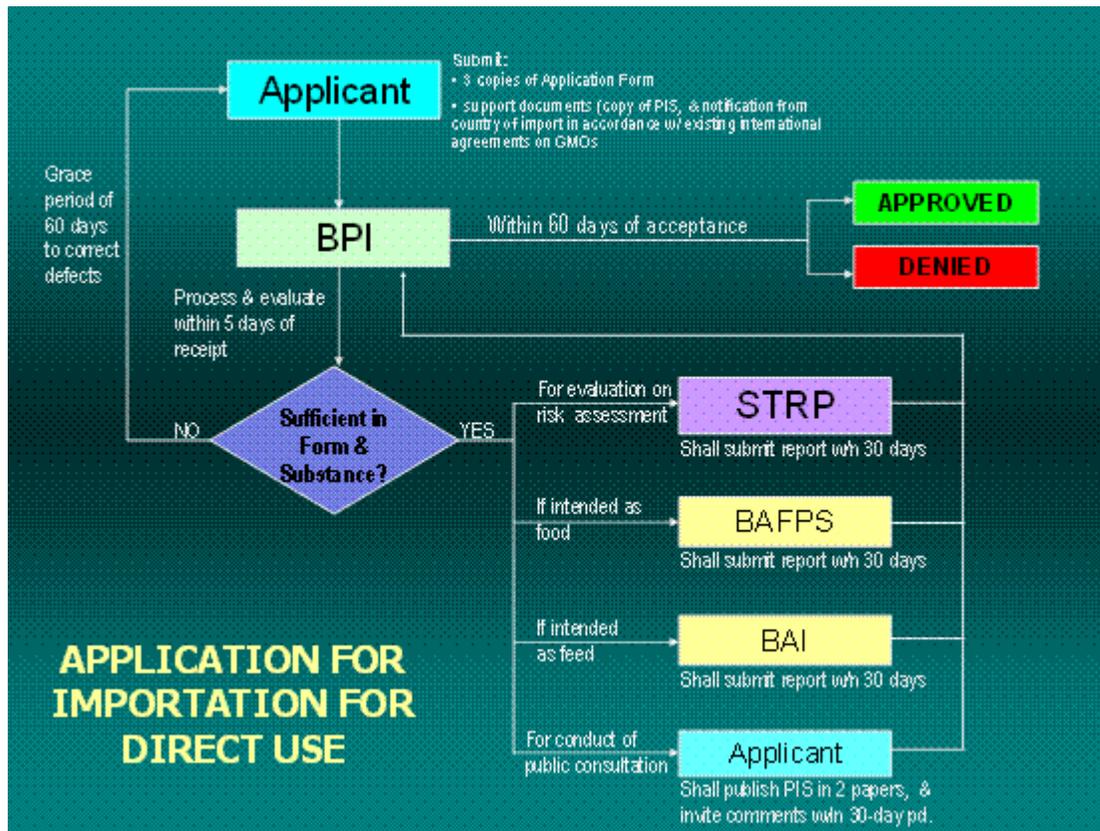
Source: Philippine Department of Agriculture

Annex II – Application to Release for Propagation



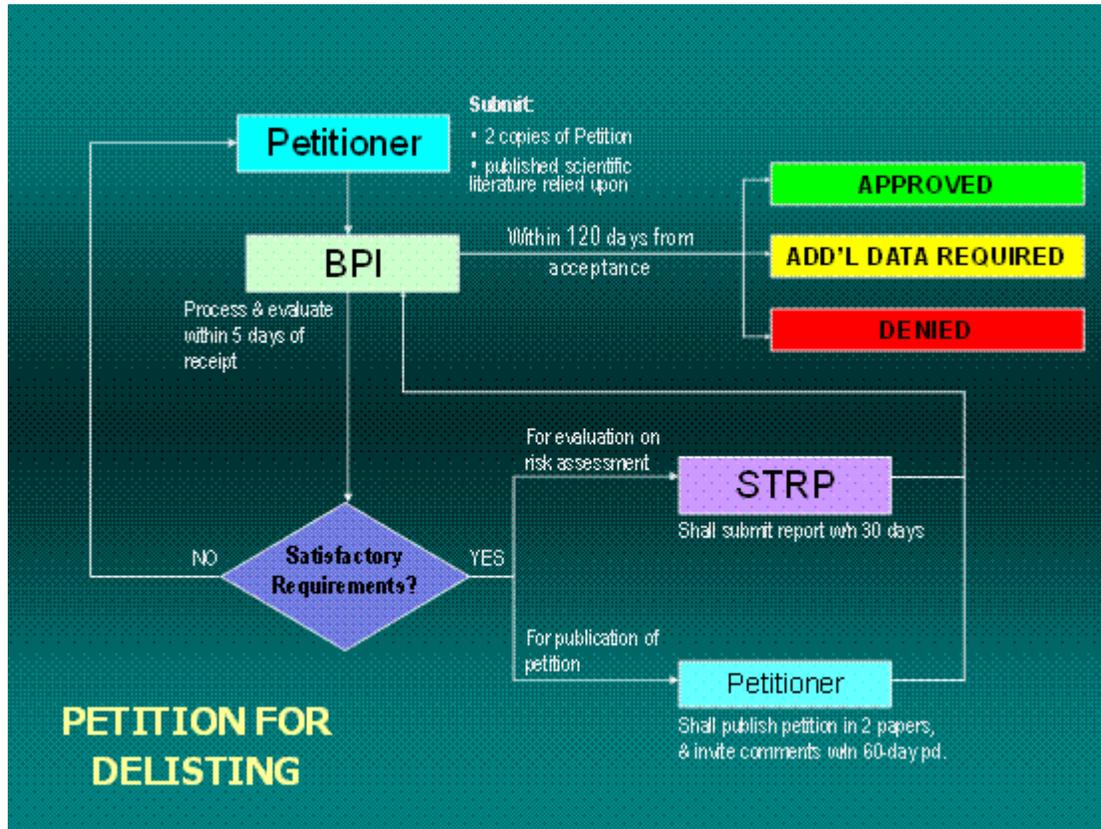
Source: Philippine Department of Agriculture

Annex III – Application for Importation for Direct Use



Source: Philippine Department of Agriculture

Annex IV – Petition for Delisting



Source: Philippine Department of Agriculture