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Report Highlights:

The long-term market acceptance prospects for biotechnology products remain positive given the GRP's science-based regulatory system allowing its use. Sustained outreach activities that link U.S.-based scientists with their local counterparts will strengthen the existing biotechnology regulations as well as help the ongoing local GE research move forward.

Includes PSD Changes: No
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Annual Report
Manila [RP1]
[RP]

I. Executive Summary

The long-term market acceptance prospect for biotechnology products remains positive given the existing transparent and science-based regulatory system allowing its use. Philippine regulations governing the use and importation of genetically engineered (GE) plant and plant products were implemented July 2003, and imports of GE plant products continue.

Agricultural imports comprise roughly 10 percent of all Philippine imports, and last year the country was the 16th largest export market for U.S. agricultural products. Currently the GRP has approved 19 Transformation Events (TEs) for direct use as food, feed or propagation. Ongoing local biotechnology research also looks promising with possible GE crop commercialization in 3-5 years. Continued information exchange between U.S.-based scientists and their local counterparts will strengthen the existing Philippine biotechnology regulations as well as enhance current Philippine GE research and development programs.

II. Biotechnology Trade & Production

Bt corn is the only GE crop that the Philippines is commercially producing. Monsanto's Bt corn MON 810 was first planted on approximately 12,000 hectares in 2003, the majority (90 percent) of which was located in Luzon, and the rest on Mindanao island. The Luzon crop, however, was virtually destroyed by typhoons in late 2003. Bt corn adoption was lower than expected in its first year of production due to the higher price of Bt corn seeds (P4,300 or \$79 dollars per 18 kg. bag per hectare) compared to traditional seed used at that time (P2,300 or \$42 per bag).

More favorable weather conditions in 2004, and the approval in December 2003 of Pioneer Hi-Bred Inc.'s application to commercially sell MON 810 Bt corn seeds in the country, improved the availability of Bt corn seed which enhanced higher adoption of the GE variety. Area planted to Bt corn more than tripled to roughly 55,000 hectares in 2004. GE corn area planted this year is predicted to accelerate and reach about 150,000 hectares as a result of the approval of two more GE corn events for commercial production, namely: Monsanto's corn NK603 event (Roundup Ready® corn) and Syngenta's Bt Corn 11. The projected 2005 GE corn area, however, represents only 5 percent of total area planted to corn annually.

The Philippines currently produces only GE crops that have satisfactorily passed the US regulatory system. There is, however, on-going local research on genetically engineered crops including a GE-papaya with a delayed ripening trait being developed by the Institute of Plant Breeding at the University of the Philippines at Los Baños (IPB-UPLB), and Golden A-fortified rice which is resistant to *tungro* and bacterial blight disease currently being developed by the Philippine Rice Research Institute (PHILRICE). Both projects are at the contained-trial stage and will likely be developed for commercial production in 3–5 years.

Agricultural imports comprise roughly 10 percent of all Philippine imports. The Philippines imports a wide variety of products from the United States. In 2004, the Philippines was the 16th largest export market for US agricultural products. US agricultural, fishery and forestry product exports to the Philippines increased by 10 percent over the 2003 level to \$709 million. In 2004, the Philippines was our 3rd largest soybean meal market, 4th for dairy products, 6th for snack foods excluding nuts, 7th for wheat, 13th for pet food, and 14th for consumer-oriented agricultural products, with export values at \$73 million, \$69 million, \$31 million, \$223 million, \$8 million, and \$217 million, respectively. Imports of biotechnology crops and their derivative products are estimated at \$400 million annually.

The country is also a frequent recipient of U.S. food aid programs including P.L. 480 Title I, Section 416 (b) and the Food for Progress programs. Commodities involved in recent food aid programs are rice, wheat, soybean meal, and corn.

III. Biotechnology Policy

Agriculture including forestry and fishery plays a dominant role in the Philippine economy. The country's population is predominantly rural (70 percent of the total), and agriculture contributes about 20 percent to the country's GDP. Two-thirds of the country's population depends on farming for its livelihood, and about half of the labor force is engaged in agricultural activities. While Philippine agriculture is characterized by a mixture of small, medium and large farms, the majority of the farms are small, averaging about 2 hectares and are managed by single families ranging from subsistence to commercial production. Four commodities: rice, corn, livestock and poultry account for about 76 percent of the country's gross agricultural production.

In October 1990, well ahead of its Asian neighbors, then-President Corazon Aquino signed Executive Order 430 (EO) creating the National Committee on Biosafety of the Philippines (NCBP), the agency responsible for regulating biotechnology research. Composing the NCBP are representatives from the Departments of Environment and Natural Resources (DENR), Health (DOH), Science and Technology (DOST) and Agriculture (DA). EO 430, consistent with its mandate to formulate guidelines on biosafety and risk assessment, issued the regulations for contained work, large-scale contained work and glass house trials, and, subsequently, guidelines for single-site field trials.

The structure of Philippine agriculture began to change with agricultural production stagnating during the last decade. From approximately 4.6 million farms covering an estimated 10 million hectares in 1991, the number of farms declined to 4.5 million covering an aggregate area of 9.2 million hectares in 2002, according to a report from the National Statistics Office (NSO). The area per farm, according to the NSO, averaged 2.04 hectares in 2002 as against 2.16 hectares in 1991. Food demand, however, significantly increased due to the rapidly growing Philippine population. Currently estimated at 85 million, at a 2.4 percent growth rate, an additional 2 million mouths are to be fed next year. The diminishing number of farms and aggregate farm area, coupled with the growing population resulted in the Philippines becoming a net food importer in 1995.

Agricultural policy, thus, has shifted since then from one centered on traditional small-scale, commodity-based farming systems, to the current GRP thrust encouraging a market-oriented, high technology, supply chain approach. Food security has become of paramount concern.

Biotechnology research was further given a boost when in 1997, the Agriculture and Fisheries Modernization Act (AFMA) or Republic Act 8435 (RA 8435) was enacted. The AFMA provides the framework to address the longstanding problems of Philippine agriculture and will drive all agricultural policy and programs. It is noteworthy for its thoroughness and comprehensive approach; its commitment to a market approach to increasing production; its support for liberalization and privatization within the agricultural sector; and, its goal of globalization and support for Philippine WTO commitments. RA 8435 likewise provides that biotechnology should form part and parcel of the annual budget for agricultural R & D. Originally scheduled to expire this year, the Philippine Congress, in March 2004, extended the AFMA to 2015. More information on AFMA is provided in GAIN RP 9001.

By July 2001, about the time the first Bt corn field tests were conducted, current Philippine President Gloria Macapagal-Arroyo issued this policy statement: "We shall promote the safe and responsible use of modern biotechnology and its products as one of several means to achieve and sustain food security, equitable access to health services, sustainable and safe environment, and industry development." The statement paved the way for DA's

subsequent issuance of DA Administrative Order (DA-AO) No. 8 or the commercialization guidelines for biotech plant and plant products, on April 2002, effective May 2002.

The following year, May 2003, DA issued Memorandum Circular (DA-MC) No. 8, which outlined the import requirements for biotech products (effective July 1, 2003). This was followed by the issuance of Memorandum Circulars 11 and 12 in August 2003, which further clarified the import rules for biotech products for direct use as seed, food, feed, or for further processing.

Successful in-country contained experiments and field tests are mandatory for securing approval to commercially propagate a biotech crop in the Philippines. Such testing is not required, however, for securing approval to import biotech crops for direct use as food and feed.

DA-AO No. 8 requires satisfactory testing under contained conditions, field trials in the Philippines, and food and/or feed safety studies and literature searches before allowing the commercial sale and use of biotech seeds and planting materials. If the seeds are pest-protected plants, the TE must be registered with the Fertilizer and Pesticide Authority (FPA), an agency under the supervision of DA. Approvals for the sale and use of biotech seeds and planting materials are valid for five years.

Application to import biotech products for direct use as food, feed or further processing, also valid for five years, will be considered only if the product has been authorized for commercial distribution as food or feed in the country of origin, and adequate documentation shows that the product will not pose significant risk to human and animal health. Products approved are included in the registry (Appendix A) for direct use maintained by the Bureau of Plant Industry (BPI), and the applicant is no longer required to secure an import permit for succeeding shipments. However, a notification of shipment to BPI is required within fifteen days before its arrival at a Philippine port.

BPI has overall regulatory supervision over field trials, commercial propagation, and imports for experimental and direct use as seed, food, feed, or for further processing. Applications are referred to the Bureau of Agriculture and Fisheries Product Standards (BAFPS) to determine compliance with food safety standards; the Bureau of Animal Industry (BAI) to determine compliance with feed safety standards; and the FPA for pest-protected plants. Developers are required to pay the appropriate fees during application.

DA-AO No. 8 requires that a sanitary and phytosanitary import permit indicate that a shipment contains or may contain GE crops. In addition, a declaration of GE content issued by an authorized body from the country of origin, or by an accredited laboratory, or by the shipper/importer must accompany these shipments. This declaration should list the probable transformation events of the biotech product. It should be noted that this is a declaration, not a certification. Where possible, shipments shall be identified with a label indicating the permit number, name of the biotech product and date of importation.

BPI currently has 19 TEs approved for direct use as food, feed or propagation (Refer to Appendix A). Included in the approval registry are three TEs approved for commercial production, namely: Monsanto's Corn MON810, Corn NK 603, and Syngenta's Corn Bt 11. There are no technology fees or payments made by farmers to developers when commercially propagating the approved TEs, and there is no known pending legislation to this effect.

Imported GE plant products with stacked genes produced through the insertion of an additional transgene by transformation of an existing biotech plant, and/or insertion of

multiple genes into a non-transgenic plant with a vector containing two or more genes, are considered novel or new transformation events. They are thus required to undergo the risk assessment procedure of DA-AO No. 8, which covers food, feed, and environmental safety assessment. Approvals are likely to be expedited if developers provide adequate and timely information.

GE plants and plant products with multiple traits derived through conventional breeding of plants, however, with one or more transgenes already approved individually by BPI under DA-AO No. 8 for commercial propagation – are not considered new events, and therefore need not undergo the full food, feed, and environmental safety assessment. An initial evaluation and risk assessment will focus on the possible or expected interaction effects between/among the multiple traits conferred in the plant.

To date, BPI has approved seven stacked trait products for importation for direct use as food and feed as noted in the following table.

APPROVED STACKED TRAIT PRODUCTS FOR FOOD AND FEED

Stacked Trait Product	Technology Developer	Date Approved
1. Corn MON810 x Corn NK603	Monsanto	Nov. 16, 2004
2. Corn NK603 x Corn MON863	Monsanto	Nov. 16, 2004
3. Corn MON810 x Corn MON863	Monsanto	Nov. 16, 2004
4. Corn MON810 x GA21	Monsanto	Nov. 16, 2004
5. Bollgard Cotton (Event 531) x Roundup Ready Cotton (Event 1445)	Monsanto	Nov. 22, 2004
6. Bollgard Cotton (Event 15985), Roundup Ready Cotton (Event 1445)	Monsanto	Nov. 22, 2004
7. Yieldgard®Plus (MON863 x MON810) and Roundup Ready® (NK603) Corn	Monsanto	Feb. 7, 2005

Source: Bureau of Plant Industry

Field testing of products with multiple traits conferred through conventional breeding still to be approved individually for commercial propagation by the BPI is allowed for the purposes of collecting data or verifying existing field test data, for as long as the particular event(s) has been tested under contained conditions in the Philippines and has obtained a certificate of satisfactorily passing the test from the NCBP.

The following Table summarizes the approved field-testing of regulated articles to date. Monsanto's stacked trait MON810 x Corn NK603, already approved for direct use as food and feed, has also applied for propagation; its field trial was recently concluded. The corresponding field-test report is currently undergoing evaluation by BPI and is likely to be ready for commercialization within two months.

APPROVAL REGISTRY FOR FIELD TESTING OF REGULATED ARTICLES

Proposal	Technology Developer	Date Approved
1. Demonstration of Weed Control Performance of Roundup Ready Corn (RRC) System (DK818 NK603) vis-a-vis Farmers' Practices.	Monsanto	Nov. 26, 2004
2. Performance of Roundup Herbicide (360 g ae/L IPA Salt (Against Weeds in Glyphosate-Tolerant Corn.	Monsanto	Nov. 26, 2004
3. Field Verification of the Agronomic Performance of the Transgenic Corn Hybrid Stacked (NK603/MON 810) Expressing the Bacillus Thuringiensis Cry1AB Protein for Resistance Against the Asiatic Corn Borer and PROTOCOL4 EPSPS for Tolerance Against the Herbicide Roundup.	Monsanto	Dec. 10, 2004

Source: Bureau of Plant Industry

In general terms, there currently is no policy that governs the coexistence of GE and non-GE crops, including those referred to as "organic crops." BPI likewise has yet to develop guidelines on adventitious presence and is reportedly waiting for the establishment of international protocols and regulations along this line.

Similarly, the Philippines currently does not have rules relative to labeling or traceability of biotech products for retail sale. In September 2002, DOH issued a public statement that labeling does not provide additional health or safety information. According to DOH, processed and pre-packaged food products currently in the Philippine market have passed international food safety standards. NGOs and civil society groups, purportedly defending consumer rights, however, have been carrying out an aggressive campaign calling for the mandatory labeling of all GE food products. In a Bureau of Food and Drugs (BFAD) – commissioned study, however, it was determined that a mandatory GE labeling system would raise food manufacturing costs by 11 to 12 percent (see MARKETING Section).

In February 2005, BFAD developed draft labeling guidelines that apply to processed foods derived from the use of modern biotechnology with resulting proteins existing even after processing, and which the DA has not allowed for commercial release under DA-AO No. 8. The draft guidelines, founded on the principle of substantial equivalence, have been found to be acceptable by the local food industry. Food products found to be substantially equivalent with their traditional counterparts will be governed by a voluntary negative labeling regime, while those not substantially equivalent, are required to be labeled. The BFAD labeling guidelines are currently being finalized and will likely be issued sometime next year.

While the Philippines is a signatory to the Cartagena Protocol (Protocol), the Philippine Senate has yet to ratify this treaty, and ratification is not expected in 2005. The Senate Committee on Foreign Affairs has yet to deliberate on its ratification. If, and when the

Protocol is ratified, however, there are indications that the GRP will take into account the economic effects of compliance with Protocol provisions in view of rising consumer prices.

In the interim, starting May 2004, the GRP required all biotech shipments to the Philippines be accompanied by a "Declaration of Genetically Modified Content." This declaration is then compared to the DA-AO No. 8 approval registry (Appendix A). DA maintains that the declaration brings the Philippines into compliance with Article 18.2 of the Protocol and is a part of its food and environment safety regulations. Since its implementation, Post is not aware of any incident where the market access of U.S. biotech plants or plant products has been hampered as a result of this requirement.

DA-AO No. 8, however, is being challenged by the National Biosafety Framework (NBF) put forward by the DENR for Presidential approval in the form of an EO. DENR envisions the proposed NBF-EO as an interim mechanism for implementing the Protocol, designating the NCBP as the focal point for the Biosafety Clearing House (Article 20 of the Protocol) and the Department of Foreign Affairs (DFA) as the national focal point responsible for liaison with the Protocol Secretariat (as provided in Article 19 of the Protocol). The NBF takes into consideration non-science based parameters, such as socio-cultural factors, in its biosafety decision-making and involves local government units and other non-technical subsidiary bodies in the issuance of biosafety permits.

IV. Marketing Issues, Capacity Building and Outreach

The long-term market acceptance prospect for biotechnology products in the Philippines remains positive given the existing regulatory system allowing its use. The GRP has made significant progress in advancing the technology. Just recently, the first week of July 2005, was declared as the National Biotechnology Week of the Philippines – another milestone in the country's biotechnology history. The declaration was contained in Presidential Proclamation No. 861 issued by President Arroyo. Featured during the opening ceremonies of Biotechnology Week was the signing of a Memorandum of Agreement in support of biotechnology by DA and the League of Municipalities of the Philippines.

The positive market outlook is also based on the Philippine Bt corn experience, the lessons learned from it, as well as the issues and the appropriate responses to the challenges that arose. Bt corn is the only GE crop produced locally, and it is widely known that imported corn shipments from traditional sources such as Argentina, South Africa and the United States are likely to contain GE corn. Local Bt corn farmers are generally happy as a result of higher incomes derived from a reported 40 percent increase in yields. Feedmillers and end-users, on the other hand, note the superiority of the variety in terms of grain quality and consistency, while animal nutritionist attest to its safety, both to livestock and poultry health.

As mentioned in the POLICY Section, the local livestock and poultry sectors are two of the consistent and major contributors to the growth of Philippine agriculture, and its continued expansion relies heavily on an adequate quality feed supply. Post believes the economic contribution of these sectors can be greater with a more ample corn supply, whether it be from domestic stocks augmented by improved local corn production or through increased corn imports. While it may be argued that the acceptance of Bt corn has reached its current level because there is a need for more corn, the positive Bt corn results experienced by domestic farmers will improve further acceptance of biotechnology, both for propagation as well as for direct use as animal feed or food.

Some pockets of resistance to Bt corn still exist, arising mainly from the disinformation campaign by anti-biotech groups. Because of the comparatively higher price of Bt corn seed

compared to traditional corn seed, anti-biotech groups commonly put forward the domination scenario of multinational seed firms in their outreach propaganda. This argument will eventually lose steam as GE crops are developed by local scientists; currently Filipino researchers are developing TEs for rice and papaya.

Anti-biotech groups also cite Bt corn farms that performed below expectations as a reason why Bt corn technology should not be adopted. Farms with subpar productivity were the result of non-compliance with the recommended cultural practices and more effective extension and outreach will help Filipino farmers achieve optimum performance for GE crops going forward.

Environmental and human health concerns still exist but have been effectively diffused by the immediate response of the local research and scientific communities. The need to underscore the word immediate, in this case, is imperative as a delayed response has a tendency to build credence to the half-truths being peddled by anti-GE groups. Scientists are in the best position to credibly explain and clarify biotechnology-related issues

The BFAD-commissioned study entitled "The Cost Implications of GM Food Labeling in the Philippines" may be downloaded at the website below. The document is a comprehensive study on the Philippine food industry, its structure and practices, as well as regulatory implications, etc. It provides useful market information for U.S. food companies interested in the Philippine market and provides important insights on the issue of GE food labeling.

<http://www.bProtocol.org.ph/downloads/Cost%20Implications%20of%20GM%20Food%20Labeling%20in%20the%20Philippines.pdf#search='abraham%20manalo%20gm%20food'>

APPENDIX A - TABLE OF APPROVED BIOTECHNOLOGY PRODUCTS

Crop/Event	Introduced trait and gene	Date Approved	Safety Assessment			Developer	Other countries with similar assessments
			Food	Feed	Propagation		
1. Corn MON 810	Resistance to corn borer Cry 1A (b) gene from <i>Bacillus Thuringiensis</i>	Dec. 4, 2002 Dec. 4, 2002 for Propagation	X	x	x	Monsanto	FOOD, FEED, & PROPAGATION: Argentina, Canada, Japan, South Africa, Switzerland, USA.
2. Corn Bt 11	Insect protected, herbicide tolerant maize - Bt protein from <i>Bacillus Thuringiensis</i> and PAT protein from <i>Streptomyces viridochromegenes</i>	Jul. 22, 2003 Apr. 14, 2005 for Propagation	X	x	x	Syngenta	FOOD & FEED: Argentina, Australia, Canada, EU, Japan, Switzerland, UK, USA.
3. Soybean 40-3-2	Resistance to herbicide, roundup - PROTOCOL4 EPSSPS from <i>Agrobacterium sp. Strain PROTOCOL4</i>	Jul. 22, 2003	x	x		Monsanto	FOOD: Argentina, Australia, Canada, Czech Republic, Denmark, EU, Japan, Rep. of Korea, Mexico, Netherlands, New Zealand, Poland, Romania, Russia, Switzerland, Thailand, Taiwan, USA and UK. FEED: Canada, EU, Japan, Netherlands, Russia, Switzerland, USA and UK.
4. Corn NK 603	Glyphosate tolerance imparted by the PROTOCOL4EPSSPS	Sep. 10, 2003	x	x	x	Monsanto	FOOD & FEED: Australia, Canada, Japan, Rep. of Korea,

	coding sequence	Feb. 8, 2005 for Propagation					Mexico, New Zealand, Russia, South Africa, Taiwan and USA.
5. Corn MON 863	Cry3Bb1 for resistance to the Corn root worm, <i>Diabrotica</i> sp.	Oct. 7, 2003	x	x		Monsanto	FOOD & FEED: Canada, Japan and USA.
6. Corn TC 1507/CRY 1F	Resistance to certain lepidopterous pests in maize - Cry1F and PAT genes	Oct. 7, 2003	x	x		Pioneer	FOOD: Canada, Japan, South Africa, Rep. of Korea and USA. FEED: Canada, Japan, Rep. of Korea, South Africa and USA.
7. Corn DBT 418	Lepidopteran resistance, phosphino- tricin tolerance - Cry1Ac	Oct. 22, 2003	x	x		Monsanto	FOOD & FEED: Australia, Canada, EU, New Zealand and USA.
8. Canola RT 73	Glyphosate (Roundup) tolerance - PROTOCOL4EPS	Oct. 22, 2003	x	x		Monsanto	FOOD: Australia, Canada, EU, Japan, Mexico, New Zealand, UK and USA. FEED: Canada, EU, Japan, Mexico and USA.
9. Corn BT 176	Insect protected - Bt protein from <i>Bacillus Thuringiensis</i> and PAT protein from <i>Streptomyces viridochromegenes</i>	Oct. 24, 2003	x	x		Syngenta	FOOD: Australia, Canada, Denmark, EU, Japan, Netherlands, New Zealand, South Africa, Switzerland, UK and USA. FEED: EU, Japan, South Africa, Switzerland and USA.

10. Corn GA 21	Modified EPSPS for tolerance to glyphosate	Nov. 20, 2003	x	x		Monsanto	FOOD & FEED: Australia, Canada, Japan, Rep. of Korea and USA.
11. Corn DLL25	Phosphinonoin (PPT) herbicide tolerance specifically glutosinate ammonium	Nov. 20, 2003	x	x		Monsanto	FOOD & FEED: Argentina, Canada, China and USA.
12. Corn T25	Phosphinonoin (PPT) herbicide tolerance specifically glutosinate	Dec. 5, 2003	x	x		Bayer Crop Science	FOOD: Argentina, Australia, Bulgaria, Canada, EU, Japan, New Zealand, Russia, South Africa, Taiwan and USA. FEED: Argentina, Bulgaria, Canada, EU, Japan, South Africa, Switzerland, UK and USA.
13. Cotton 1445	Tolerance to Roundup herbicide	Dec. 5, 2003	x	x		Monsanto	FOOD & FEED: Argentina, Australia, Mexico, South Africa and USA.
14. Cotton 15985	Resistance to lepidopterous pests	Dec. 5, 2003	x	x		Monsanto	FOOD & FEED: Australia and USA.
15. Potato BI6 (RBBT02-06) and SPBT02-05	Resistance to Colorado potato beetle	Dec. 5, 2003	x	x		Monsanto	FOOD & FEED: Canada, Japan and USA.
16. Potato RBMT 15-101, SEMT	Resistance to Colorado potato beetle; resistance	Dec. 22, 2003	x	x		Monsanto	FOOD & FEED: Australia, Canada and

15-02 and SEMT 15-15	to potato virus Y (PVY)						Japan.
17. Cotton 531	Resistance to lepidopterous pests Cry 1Ac	Feb., 5, 2004	x	x		Monsanto	FOOD: Argentina, Australia, Canada, China, Colombia, EU, India, Indonesia, Japan, Mexico, South Africa and USA. FEED: Argentina, Australia, Canada, China, Colombia, India, Indonesia, Japan, Mexico, South Africa and USA.
18. Potato RBMT21-129, RBMT21-350 and RBMT 22-82	Resistance to Colorado potato beetle - CryIIIA coding sequence, Resistance to potato leaf roll virus (PLRV) - PLRV replicase	Sep. 24, 2004	x	x		Monsanto	FOOD & FEED: Australia, Canada, Japan and U.S.A.
19. Sugar beet Event 77	Glyphosate (Round-up) Tolerance	Oct. 21, 2004	x	x		Monsanto	FOOD & FEED Russia, Australia, New Zealand and Japan

Source: Bureau of Plant Industry

APPENDIX B – ACRONYMS OF SELECTED TERMS AND GRP AGENCIES

Administrative Order (AO)
Agriculture and Fisheries Modernization Act (AFMA)
Bureau of Animal Industry (BAI)
Bureau of Agriculture and Fisheries Product Standards (BAFPS)
Bureau of Food and Drugs (BFAD)
Bureau of Plant Industry (BPI)
Cartagena Protocol (Protocol)
Department of Agriculture (DA)
Department of Environment and Natural Resources (DENR)
Department of Health (DOH)
Department of Science and Technology (DOST)
Department of Foreign Affairs (DFA)
Executive Order (EO)
Fertilizer and Pesticide Authority (FPA)
Genetically engineered (GE)
Institute of Plant Breeding (IPB)
Memorandum Circular (MC)
National Committee on Biosafety of the Philippines (NCBP),
National Biosafety Framework (NBF)
Philippine Rice Research Institute (PHILRICE)
Transformation event (TE)
University of the Philippines at Los Baños (UPLB)