

## Biosafety Clearing-House (BCH)

BIOSAFETY EXPERT (EXP)

BCH-EXP-PH-100161-5

LAST UPDATED: 04 MAY 2015

### General information

Country

[Philippines](#)

**PARTY TO THE CARTAGENA PROTOCOL ON BIOSAFETY**

**ENTRY INTO FORCE: 03 JAN 2007**

### Profile of the expert

Brief profile

Dr. Reynaldo V. Eborá obtained his Ph.D in Entomology from Michigan State University, East Lansing Michigan, USA in 1995. Dr. Eborá also completed a post graduate Fellowship on Intellectual Property Management and Technology Transfer from ISAAA AmeriCenter, Cornell University, Ithaca, New York, USA in 2001. He finished the International Post Graduate Course in Microbiology at the Osaka University, Osaka, Japan in 1988. Dr. Eborá completed his M.S. Entomology (Insect Pathology/Microbial Control) at the University of the Philippines Los Baños in 1987 where he also completed his B.S. in Agriculture (Entomology) in 1982. At present, Dr. Eborá is a Research Associate Professor at the National Institute of Molecular Biology and Biotechnology (BIOTECH), University of the Philippines Los Baños and is currently on secondment to the Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development (PCAARRD) of the Department of Science and Technology (DOST).

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Contact details

- **PERSON:** DR. REYNALDO EBORA | [BCH-CON-PH-254398-5](#)

#### PERSON

Dr. Reynaldo Eborá

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Email: [rvebora@gmail.com](mailto:rvebora@gmail.com)

Year of birth

1961

Nationality(ies)

Filipino

## Details of current employment

Name of Employer / Organization / Company

Department of Science and Technology (DOST-PCAARRD)

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Type of organization

Government agency (National/Federal)

Department / Division / Unit

Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development

EN

Start Date

2015-01

Type of organization

Government agency (National/Federal)

Main Areas of Responsibility

Provides central directions, coordination and control on the operation of the administration.

EN

## Employment history

Countries or regions worked in

Philippines

United States of America

Name of Previous Employer / Organization / Company

University of the Philippines Los Baños (UPLB-BIOTECH)

EN

Type of organization

Department / Division / Unit

National Institute of Molecular Biology and Biotechnology

EN

Start Date

2010-01

End Date

2015-01

Type of organization

Government agency (National/Federal)

## Main Areas of Responsibility

Provides central directions, coordination and control on the operation of the administration of the council.

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## Post-secondary education

### A. Formal education

#### First Degree

Title of the Degree or other academic distinction and subject

Bachelor of Science in Agriculture (Major in Entomology)

EN

Name of academic institution

University of the Philippines, Los Baños, Laguna

EN

Start Date

1978-01

End Date

1982-01

#### Second Degree

Title of the Degree or other academic distinction and subject

M.S. Entomology (Insect Pathology) (Minor- Plant Pathology)

EN

Name of academic institution

University of the Philippines, Los Baños, Laguna

EN

Start Date

1982-01

End Date

1987-01

#### Third Degree

Title of the Degree or other academic distinction and subject

M.S. Entomology (Insect Pathology) (Minor- Plant Pathology)

EN

Name of academic institution

University of the Philippines, Los Baños, Laguna

EN

Start Date

1982-01

End Date

1987-01

## B. Other professional qualifications

International Post Graduate University Course in Microbiology , Osaka University, Osaka Japan, 1987-1988

Visiting Fellow, Intellectual Property Management Technology Transfer, ISAAA AmeriCenter/Dept. of Plant Breeding Cornell University, Ithaca, New York, USA, 2000-2001

Regional Coordinator for Southeast Asia Program for Biosafety Systems (A USAID funded initiative)

## Areas of expertise

Biosafety Clearing-House

Biotechnology

Entomology

Insect resistance

## Publications

Mehta-Bhatt P., R.V. Ebor, J.I. Cohen, J.F. Zepeda & P. Zambrano. 2005, An Overview of Regulation, Perceptions and Priorities for GM Crops in Asian Countries. Capacity Building Activities in Biosafety (S.R. Rao, Guest Ed.). Asian Biotechnology and Development Review, 7(3):9-24.

Atanassov A., A. Bahieldin, J. Brink, M. Burachik, J. Cohen, V. Dhawan, R.V. Ebor, J. Falck-Zepeda, L. Herrera-Estrella, J. Komen, F.C. Low, E. Omaliko, B. Odhiambo, H. Quemada, Y. Peng, M.J. Sampaio, I. Sithole-Niang, A. Sittenfeld, M. Smale, Sutrisno, R. Valyasevi, Y.Zafar and P. Zambrano. 2004. To Reach The Poor: Results of the ISNAR-IFPRI Next Harvest Study on Genetically Modified Crop, Public Research and Policy Implications. Environment and Production Technology Division Discussion Paper No. 116. International Food Policy Research Institute. Washington, D.C. 20006, USA. 76 p.

(<http://www.ifpri.org/divs/eptd/dp/papers/eptdp116.pdf>)

P.A. Javier, M.L.Q. Sison & R.V. Ebor 2003. Integrated Pest Management in the Philippines. In Integrated Pest Management in the Global Arena. K.M. Maredia, D.Dakouo, D. Mota-Sanchez.CAB International, Cromwell Press, Trowbridge, UK.pp. 239-248.

## Professional memberships

Philippine Society for Microbiology, Inc. (PSM)

Member - 1996 to date

Immediate Past President - 1999-2000

President - 1998-1999

Vice President - 1997-1998

Division Representative (Environmental) - 1996-1997

Philippine Association of Entomologist (PAE) - Member

Philippine Society for Biochemistry and Molecular Biology (PSBMB) - Member

## Language proficiency

Mother tongue

Other (Filipino)

Other languages

Language	Level
English	excellent
Other	excellent

## Any other relevant information

### Nomination Type

Roster of Experts Open-ended Online Expert Forum on RA&RM

### Birth Place

Lopez, Quezon, Philippines

### Other Publications

M.A. Deseo and R.V. Eborá 2002. Part IV. Country Reports: Philippines. Production and Utilization of Pesticides in Asia and the Pacific. Asian Productivity Organization (APO). Tokyo, Japan, T.W. Schillhorn van Veen, ed. Pp. 293 – 306.

Kowalski S.P., R.V. Eborá, R.D. Kryder & R. H. Potter. 2002. Transgenic Crops and Ownership Rights: What Scientists Need to Know. The Plant Journal 31(4):407- 421

M.T.M. Perez, A.K. Raymundo, R.V. Eborá and J.E. Leach. 2001. Diagnostic primers for the detection of *Xanthomonas oryzae* pv. *oryzicola*. The Philip. Agricultural Scientist. 84(4): 408-418.

Eborá, R.V., R.E. dela Cruz, C.R. Arboleda and L.S. Cabanilla. 1998. Regulations for Agricultural Products Derived from Biotechnology in the Philippines. In Proceedings of the ASEAN Workshop on Regulations for Agricultural Products Derived from Biotechnology. Singapore, 1-2 April, 1998. Primary Production Department. Singapore (ed). pp. 22-26.

R.V. Eborá and M.R.C. Garcia. 1997. Characterization of Salt Tolerant Bacterial Isolates and Cloning of Their Chitinase Genes. In Annual Report of IC BIOTECH, Vol. 20, p. 911-921. (International Center for Cooperative Research in Biotechnology, Japan).

Eborá R.V. and M. B. Sticklen. 1995. Past, Present and Future of the Development of Transgenic Plants with *Bacillus thuringiensis* Genes. Proceedings of the paper presented in the 1st Colombian International Workshop of *Bacillus thuringiensis*. August 23- September 1, 1995. Bogota, Colombia,

Eborá R.V., M.M. Eborá and M.B. Sticklen. 1994. Transgenic potato expresing the *Bacillus thuringiensis* CryIA(c) gene effects on the survival and food consumption of *Phthorimea operculella* (Lepidoptera: Gelechiidae) and *Ostrinia nubilalis* (Lepidoptera: Noctuidae). J. Econ. Entomol. 87(4):1122-1127.

Eborá R.V. and M.B. Sticklen. 1993 & 1994. Production of insect resistant plants by genetic engineering In Proceedings of the Global Pest Resistance Management Training, Summer Institute (M. Whalon, K. Maredia & M. Bush,eds) Michigan State University, East Lansing, MI, USA.

Eborá R.V. and M. Sticklen. 1994. Transgenic insect-resistant plants: The modern biocontrol and an integral part of pest management. BIOCONTROL. Magazine of the International Center for the Biological Control of Pests and Pathogens. Lima, Peru. 1:45-51.

Eborá R.V. and M. B. Sticklen. 1994. Genetic transformation of Potato for Insect Resistance. In

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Advances in Potato Pest Biology and Management.( G.W. Zehnder, M.L. Powelson, R.K. Jansson, K.V. Raman, eds.). APS Press, St. Paul, Minnesota. pp. 509-521.

Mitamura M., R.V. Ebor, T. Nakai, Y. Makino, S. Negoro, I. Urabe and H. Okada. 1990. Structure of isozyme genes of glucose dehydrogenase from *Bacillus megaterium* IAM1030. J. Ferment. Bioeng. 70(6): 363-369.

Ebor R.V., Y. Makino, I. Urabe, S. Negoro and H. Okada. 1988. Cloning and expression of glucose dehydrogenase genes from *Bacillus megaterium* IAM 1030. In Annual Report of IC BIOTECH, Vol. 11, p. 187-196. (International Center for Cooperative Research in Biotechnology, Japan).

Padua L.E., R.V. Ebor and D.G. Moran. 1987. Screening of *Bacillus thuringiensis* against Asiatic corn borer, *Ostrinia furnacalis* (Guenée) and diamond backmoth, *Plutella xylostella* (L.) ASPAC Food and Fertilizer Technology Center, Technical Bulletin No. 103. 7 pp.

Padua, L.E. and R.V. Ebor. 1986. Laboratory Exercise 3A. Bioassay of *Bacillus thuringiensis* (Berliner)  $\delta$ -endotoxin against Asian corn borer (*Ostrinia furnacalis* Guenée) In Southeast Asian Regional Training Course on Microbial Control of Pests and Plant Diseases in the Tropics. (Proceedings). October 19-26. BIOTECH, UP at Los Baños. pp. 78-81.

Padua, L.E. and R.V. Ebor. 1986. Laboratory Exercise 3B. Bioassay of *Bacillus thuringiensis* subsp. *morrisoni* (Serotype 8a:8b) against *Aedes aegypti*. In Southeast Asian Regional Training Course on Microbial Control of Pests and Plant Diseases in the Tropics. (Proceedings). October 19-26. BIOTECH, UP at Los Baños. PP. 82-83.

Padua, L.E. and R.V. Ebor. 1986. Laboratory Exercise 3C. Bioassay of *Bacillus thuringiensis* against copepod, *Phyllognathopus viguieri* (Maupas) In southeast Asian Regional Training Course on Microbial Control of pests and Plant Diseases in the Tropics. (Proceedings). October 19-26. BIOTECH, UP at Los Baños. pp. 84-85.

Padua, L.E. and R.V. Ebor. 1986. Laboratory Exercise 4A. Diagnosis of pathogenic insect viruses. In southeast Asian Regional Training course on Microbial Control of Pests and Plant Diseases in the Tropics. (Proceedings). October 19-26. BIOTECH, UP at Los Baños. p. 86.

Ebor, R.V. and L.E. Padua. 1986. Laboratory Exercise 4C. Calculation of median lethal dose (LD<sub>50</sub>) of NPV against *Spodoptera litura* Fab. using probit analysis, Reed and Muench method and graphical Method. In Southeast Asian Regional Training Course on Microbial Control of Pests and Plant Diseases in the Tropics. (Proceedings). October 19-26. BIOTECH, UP at Los Baños. pp. 90-115.

Padua, L.E., F.S. Maslog, E.P. Alcantara and R.V. Ebor. 1984. Poultry manure decoction as substrate in the production of *Bacillus thuringiensis* PG-14 in the Philippines. Microbial Utilization of Renewable Resources. 4:349-356.

R.V. Ebor. 2003. Facts about Bt Corn in the Philippines. University of the Philippines Los Baños Horizon. Vol. 5(9):2 August 2003

dela Cruz R.E. and R.V. Ebor. 2003. Commercialization of Biotechnology Products: The BIOTECH-UPLB Experience In New Frontiers in Research for Sustainable Development. (Lecture Series in Honor of Chancellor Ruben L. Villareal) ISPPS-CPAf, UP Los Baños, College, Laguna, Philippines 4032. pp 19-32.

Ebor R. V. 2000. Agri-biotechnology: Directions for the New Millennium. Food and Agribusiness Yearbook & Directory. University of Asia and the Pacific. Pp. 459

Ebor R.V. 1999. Applications of Biotechnology in Agriculture In Proceedings of the Seminar on Understanding and Appreciating Biotechnology. July 22-23, 1999. Mindanao State University. Pp.35- 47.

Perez, M.T.M., M.R. Calapardo, R.V. Ebor, F.B. Elegado, M.R.C. Garcia, M.A.R.V. Guerra, M.A. Mercado, T.J. Ramirez, A.B. Sapin, R.D. Tambalo, M.B. Brown, M.J. Papa, A.R. Alday, D.A.

Dancel, M.C. Tobias and S.M. Mercado. 1998. Screening of RAPD markers for the detection of foodborne pathogens. Proceedings of the 27th PSM Annual Convention. May 7-8, 1998. Manila, Hotel.

MT.M. Perez, A.K. Raymundo, R.V. Eborá and J.E. Leach. 1998. Cloning of Repetitive Sequence-Based PCR Products for Detection of *Xanthomonas oryzae* pv. *oryzicola*. In Proceedings of the 26th Annual Convention, Philippine Society for Microbiology Inc. (PSM) "Microbiology for Macro Socio-Economic Development" May 8-9, 1997, Caliraya Re-Creation Center, Lewin, Lumban, Laguna. pp. 132-137.

C.B. Pham, S.A. Sedano, J.A. Dante and R.V. Eborá. 1998. Improvement of *Lentinus edodes* by UV Mutagenesis for Protein Enrichment of Corn Cobs (Abstract of Poster Paper) In Proceedings of the 26th Annual Convention, Philippine Society for Microbiology Inc. (PSM) "Microbiology for Macro Socio-Economic Development" May 8-9, 1997, Caliraya Re-Creation Center, Lewin, Lumban, Laguna. pp. 266.

Eborá, R.V., N. Hajela, B. Laviña, M.R. Garcia, L. Escobin and M.B. Sticklen. 1997. Modified Simple Technique for the Rapid Isolation of Plasmid DNA from Bacterial Cultures. *Phil. J. Biotechnol.* 8(1): 1-8.

Eborá R.V. 1995. Transformation Studies on Potato and Rice Using *Bacillus thuringiensis* Cry Genes for Insect Resistance. *Bull. Phil. Soc. Biochem. Mol. Biol.* 13 & 14: 90-96.

Eborá R.V., B. Merle Shepard and E. P. Cadapan 1991. Host range, effect on food consumption and mechanical transmission of nuclear polyhedrosis virus of *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). *The Phil. J. Biotechnol.* 2(1):81-92.

Eborá R.V., B. Merle Shepard and E. P. Cadapan 1990. Mass propagation and factors affecting virulence of a nuclear polyhedrosis virus of *Spodoptera litura* (Fab.) (Lepidoptera: Noctuidae). *The Phil. J. Biotechnol.* 1(2):138-149.

Padua, L.E., E.M. Eugenio, R.C. Ignacio, C.D. Ebuenga and R.V. Eborá. 1990. Utilization of gulaman as solidifying component in the artificial diet of the Asian corn borer, *Ostrinia furnacalis* (Guenee). *Philipp. Ent.* 8(1) 683-687.

Section Editor (Biotechnology) - *The Philippine Agricultural Scientist* (Formerly the *Philippine Agriculturist*) - March, 2002 to December 2003 ; January 2000 to August 19, 2000

Biotechnology for Sustainable Utilization of Biological Resources in the Tropics. Vol. 14. JSPS-NRCT/DOST/LIPI/VCC Joint Seminar. November 22-24, 1999, Penang Malaysia. T. Yoshida, T. Seki, P. Matangkasombut, R.V. Eborá, E. Sukara and M.I. A. Karim. Eds. International Center for Biotechnology, Osaka university, Osaka, Japan. 350pp.

What You Want to Know About Genetically Modified Organisms. PCASTRD -DOST. 2003. F.A. Cariño, R.V. Eborá, E.M.T. Mendoza, - Technical Consultants I.F. Dalmacio - Editor

### **Relevant Awards**

Most Outstanding Alumnus (Entomology) for the Year 2004. LNCHS General Alumni Association, Inc. Lopez National Comprehensive High School, Lopez, Quezon

University of the Philippines President's Awards for Academic Distinction (International Publication Award) 2003 for the paper entitled Transgenic crops, biotechnology and ownership rights: What scientists need to know. *The Plant Journal* (2002) 31(4), 407-421 co-authored with Stanley.P. Kowalski, R. David Kryder and Robert H. Potter.

Department of Agriculture Secretary's Award for the paper entitled Diagnostic Primers for the Detection of *Xanthomonas oryzae* pv. *oryzicola* co-authored with Asuncion K. Raymundo, Maria Theresa Perez and Jan Leach, given on November 28, 2002 by the Bureau of Agricultural Research - Department of Agriculture (DA-BAR) at the Bureau of Soils and Water Management.

## Further Information

Questions about the Cartagena Protocol on Biosafety or the operation of the Biosafety Clearing-House may be directed to the Secretariat of the Convention on Biological Diversity.

**Secretariat of the Convention  
on Biological Diversity**

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