



Curriculum Summary – MARTA PIZANO

Colombian national, with over 25 years experience in intensive horticulture systems, particularly floriculture. Have worked with horticulture growers and exporters in Colombia plus various countries in Latin America, Africa and Asia. My main focus of work is sustainable agriculture production through the implementation of best agricultural practices; rational use of pesticides and other chemicals; waste management; pest and disease control including quarantine issues and conservation of non-renewable natural resources.

Experienced consultant for the Montreal Protocol for the Protection of the Ozone Layer and its implementing agencies (UNIDO, UNDP, UNEP, World Bank), as well as its Multilateral Fund. Co-chair of the Protocol's Technical and Environmental Assessment Panel (TEAP) and co-chair of the Methyl Bromide Technical Options Committee (MBTOC). Highly skilled in training and communications, monitoring and evaluation, have undertaken M&E work for the Multilateral Fund (MLF). Have participated in many projects implemented by UNIDO and UNDP related to ODS phase-out, particularly substitution of methyl bromide, acquiring very wide international exposure (worked in about 25 developing countries). I have also done consultancy under the Minamata Convention on mercury, and replacement and destruction of POPs and HHPs under the Basel and Stockholm Conventions.

Consultant for government institutions and international agencies (Brazil, Mexico, Chile, Colombia), USAID/DAI (Nairobi, Kenya), CBI (Netherlands), ITC (International Trade Centre) on developing and increasing competitiveness of agricultural sectors aimed at export. Strong expertise in horticulture and floriculture, including phytosanitary issues, certification and trade.

My scope of work has included project preparation, developing strategic frameworks and action plans, policy and regulatory framework review, institutional strengthening and awareness- raising activities, selection of alternatives, assistance with adoption and adaptation, report preparation, identification of key stakeholders and result assessment. Also communication and awareness materials, monitoring and evaluation documents for the agencies.

Able to translate complex scientific and economic concepts into policy-relevant findings, or language easily understood by the general public. Very capable of meeting tight deadlines with a record of completing projects on time and to the satisfaction of sponsors and clients. Ample networks with UN agencies, government, and business and environmental NGO colleagues who can help communicate and promote the findings and find synergy with other programs.

Proficient language skills (fully bilingual Spanish/English and working knowledge of French). Many years participating in training and awareness raising events, seminars, workshops, symposia and others. Accomplished writer, translator and presenter in English and Spanish. Up-to-date computer and software capabilities, including complex formatting of documents.

Recipient of USEPAs Ozone Protection Awards (2004, 2007), the 2007 Ozone Champion Award from UNEP/ Ozone Secretariat, and the Technical Achievement Award from UNEP in 2017 (30th anniversary of the Montreal Protocol). Recipient of the "Garofano D'Argento" award (2019) presented by the Sicilian Floriculture Association in the category "international journalism"

CURRICULUM VITAE - MARTA PIZANO

November 2020

PERSONAL INFORMATION -----

-) Born in Bogotá, Colombia, August 24, 1958
-) Married to Diego Márquez, Orthopedic Surgeon
-) Three children: Roberto (31), Lorenzo (29) and Emilia (27)

EUCATIONAL BACKGROUND -----

-) Bachelor of Science, Biology, UNIVERSIDAD DE LOS ANDES, Bogotá, Colombia 1980
-) Master of Science, Plant Pathology, VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, Blacksburg, Virginia, U.S.A. 1983
-) Special Training in Plant Tissue Culture, UNIVERSITY OF CALIFORNIA, RIVERSIDE, 1985

PROFESSIONAL EXPERIENCE -----

-) **1993 – to date** INDEPENDENT CONSULTANT, Bogotá, Colombia
-) **1993 - to date** Director HORTITECNIA LTDA
-) **1994 - 1998** Executive Director, ECOFLOR (Association of Ecological Flower Growers), Bogotá, Colombia
-) **1988 - 1993** Technical Director, Colombian Association of Flower Growers and Exporters - ASOCOLFLORES - Bogotá, Colombia
-) **1986 - 1988** Technical Assistant, for same organization
-) **1984 - 1986** Director, Plant Pathology and *in vitro* propagation lab, PROPAGAR PLANTAS S.A. a carnation propagator in Bogotá, Colombia
-) **1980 – 1982** Science Editor, GUIÓN Magazine, Bogotá, Colombia

Description of work

AS AN INDEPENDENT CONSULTANT

➤ FOR THE MONTREAL PROTOCOL ON SUBSTANCES THAT DAMAGE THE OZONE LAYER (1996, to date):

-) Member of UNEP's **TECHNICAL AND ECONOMIC ASSESSMENT PANEL (TEAP)** since 2005. Appointed **Co-chair of TEAP** during the 22nd Meeting of the Parties (November 2010), reappointed at the 26th MOP (November 2014) for an additional four-year term. TEAP provides technical advice to the Parties of the Protocol. Some duties and tasks are,
 - Coordination and edition of the TEAP Assessment Report, a quadrennial publication compiling and synthesizing findings from the six Technical Options Committees (TOCs) composing the TEAP. The 2018 edition can be found at <http://ozone.unep.org/en/assessment-panels/technology-and-economic-assessment-panel>
 - Co-author of interim and progress TEAP reports (two per year on average)
 - Member of the MLF Replenishment Task Force (2009, 2017) to assist the Multilateral Fund of the Montreal Protocol in estimating the costs of meeting the Protocol's commitments over the ensuing triennium.

) Member of UNEP's **METHLY BROMIDE TECHNICAL OPTIONS COMMITTEE (MBTOC)** since August 1998 and **co-chair** since 2005 (last reappointed by the Parties of the Protocol for the period 2017-2021). Methyl bromide is a soil fumigant, which was classified as an Ozone Depleting Substance (ODS) and is being phased-out under the Montreal Protocol. Authorization for use at present is obtainable through a "Critical use Exemption" granted by the Parties to the Protocol, after careful evaluation and recommendation from the MBTOC. Activities in this role include:

- Reviewing critical-use nominations (CUN) for methyl bromide under the criteria set forth in decision IX/6 and of other relevant criteria agreed by the Parties to the Montreal Protocol. Drafting reports on CUNs twice a year, which can be found on the Ozone Secretariat website <http://ozone.unep.org/en/assessment-panels/technology-and-economic-assessment-panel>
- Preparing reports and presentations that need to be submitted during the Open-ended Working Groups and Meetings of the Parties to the Montreal Protocol.
- Preparing a comprehensive **Assessment Report** on alternatives to Methyl Bromide and factors influencing their adoption and sustainability (including for article 5 parties) every four years. The last one published is the MBTOC 2014 Assessment Report http://ozone.unep.org/Assessment_Panels/TEAP/Reports/MBTOC/MBTOC-Assessment-Report-2014.pdf. The 2018 version of this Assessment Report is presently under preparation. Previous editions of the Assessment Reports are also available.
- Co-chair of the **Quarantine and Pre-shipment (QPS) Task Force and subcommittee (2009 - 2011)** constituted by TEAP to respond to tasks assigned by the Parties of the Montreal Protocol to evaluate QPS uses of methyl bromide and their possible alternatives, together with impacts on phytosanitary issues and international agricultural trade.

) **CONSULTANT FOR THE IMPLEMENTING AGENCIES OF THE MONTREAL PROTOCOL**

) Consultancy for the agencies has been carried out within the framework of the "**Montreal Protocol for the Protection of the Ozone Layer**" of the United Nations, particularly in relation with the substitution of Methyl Bromide and the adoption of its alternatives. In essence, this work has comprised the preparation, evaluation and follow-up of projects implemented in developing countries (under Article 5 under the Protocol); selection and evaluation of the most suited alternatives to methyl bromide; training of growers and other key stakeholders on alternatives to this fumigant within the context of Integrated Pest Management, which is aimed at sustainable production, rational use of agrichemicals and preservation of non-renewable natural resources. All of these are aimed at ensuring the sustainability of the phase-out achieved. Sectors previously depending on methyl bromide generally comprise intensive agriculture and most importantly exporters, needing to comply with international sustainability and environmental standards often framed within eco-labels or certification schemes (i.e. GLOBALGAP, MPS, FAITRADE and others). Most of this work has been conducted for UNIDO, and to a lesser extent for UNEP and UNDP.

) Also conducted work on **QPS uses of methyl bromide**, the technical and economic feasibility of potential alternatives to such uses and what the impact of a possible restriction of MB used for QPS under the Montreal Protocol. This work was conducted in 2011 for the WORLD BANK focusing on trade, sustainability and food security issues in two key Asian countries, Thailand and Vietnam.

) In 2014, an analysis on MB consumption for QPS purposes in Indonesia, Thailand and Vietnam was conducted for UNIDO, with a view of identifying the impacts that the introduction of alternatives to MB could have on international trade in these three countries, with an emphasis on cocoa, coffee and rice.

) Consultancy has also involved activities such as participation in workshops and seminars, organization of study tours for key stakeholders and preparation of manuals and other instructional materials, particularly for UNEP's **OzonAction Programme** for example:

) Preparation of the booklet "The Kigali Amendment – Keeping cool without warming the planet. A toolkit for National Ozone Units". UNEP OzonAction, Paris (in press)

- J Preparation of the booklet “Minimizing QPS uses of methyl bromide – tools for controlling, monitoring and reporting. OzonAction, UNEP Paris (2016)
[http://www.unep.org/ozonaction/Portals/105/documents/7792-e-Minimisingquarantineandpre-shipment\(QPS\)usesofmethylbromide.pdf](http://www.unep.org/ozonaction/Portals/105/documents/7792-e-Minimisingquarantineandpre-shipment(QPS)usesofmethylbromide.pdf)
- J Preparation of factsheets on QPS uses of methyl bromide and their alternatives, and tracking QPS uses of MB. OzonAction <http://www.unep.org/ozonaction/Portals/105/documents/7767-e-FactsheetTrackingMBconsumptionofQPS.pdf>
- J Preparation of a toolkit for sustainable compliance with the methyl bromide phase-out, including information for all stakeholders, in cooperation with UNIDO (2015)
https://www.unido.org/sites/default/files/2015-11/UNIDO_TOOLKIT_for_sustainable_MB_phase-out_FIN_2_0.pdf
- J Preparation of the booklet, “The methyl bromide phase-out: A success story and its challenges” for UNEP, OzonAction Paris (2014, available in English, Spanish and French).
http://www.unep.fr/ozonaction/information/mmcfles/7674-e-Phasing_out_methyl_bromide_in_developing_countries.pdf
- J Invited expert to the working group on “Phytosanitary measures for the treatment of goods in international trade – Selection of potential cases of demonstration projects on alternatives to methyl bromide” organized by UNIDO in May, 2013
- J Organization of the “**Workshop on Methyl Bromide Uses for QPS purposes**” held in the margins of the 21st MOP in Port Ghalib, Egypt (November, 2009)
- J Preparation of the manual “**Floriculture and the Environment – Growing Flowers without Methyl Bromide**” for UNEP, OzonAction which was published in 2002 in French, Spanish and English. Accessible at <http://www.unep.fr/ozonaction/information/mmcfles/3546-e.pdf>
- J **Monitoring and evaluation** of projects and activities funded through the Multilateral Fund of the Montreal Protocol (MLF), see below.
- J **Analysis on linkages between ozone layer protection (via methyl bromide phase-out) and sustainable (climate-smart) agriculture** for the World Bank (2013-2014). Presently a member of the World Bank’s OORG (Ozone Operations resource Group), as methyl bromide expert.

The implementing agencies for the Montreal Protocol are UNDP, UNIDO, UNEP and the World Bank. Countries where consultancy has been provided include Colombia, Honduras, El Salvador, Nicaragua, the Dominican Republic, Panama, Ecuador, Kenya, Ethiopia, Argentina, Brazil, Chile, Mexico, Turkey, Uruguay, Paraguay, Zimbabwe, Uganda, Costa Rica, Peru, Morocco, China, Malawi, Mozambique, Vietnam and Thailand.

J **CONSULTANT FOR THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL (MLF) – MONITORING AND EVALUATION**

Consultancy for the Monitoring and Evaluation program of the MLF on different aspects related to methyl bromide phase-out in developing countries, for example countries in non-compliance or at risk of non-compliance; low volume consuming countries (LVC); and evaluation of methyl bromide alternative projects funded by the MLF. This work involved assessing progress made through projects and the sustainability of the phase-out achieved (technical, institutional, economic, regulatory) as well as identifying constraints to adoption of alternatives;.

In 2012, a desk study and an ensuing field study on the “Evaluation of Methyl Bromide Projects Implemented in Africa” were undertaken by the MLF with the aim of assessing progress made in phasing out MB and the sustainability of the phase-out achieved in the face of the final phase-out deadline for Article 5 countries of 1st January 2015. Reports resulting from these evaluations are also referenced at the end of this document.

More recently, a “Desk study for the evaluation of the sustainability of the Montreal Protocol achievements” (2019) and a “Desk study of the evaluation of regional networks of National Ozone Officers” (2020).

The related work is referenced at the end of this document, under MLF (Multilateral Fund).

➤ **CONSULTANT FOR UN AGENCIES OMN OTHER ENVIRONMENTAL MATTERS**

) **Consultant for UNDP** – Onn matters relating to

) **Consultant for International Trade Centre - 2019** ITC is a multilateral agency under joint mandate with the World Trade Organization and the United Nations Conference on Trade and Development). Work was conducted as part of an effort to develop *Lesotho’s National Trade Strategy* by the Research and Strategies for Export (RSE) Section of the ITC, which included four focus areas previously identified as a promising, one of which is horticulture.

) **Consultant for UNIDO**

) Consultant for the **BASEL CONVENTION (2011- 2012)** for the desk study of the project “**Feasibility assessment and preparation of the destruction banks of Ozone Depleting Substances (ODS) and Persistent Organic Pollutants (POPs) in Central America**”. Member of the International Advisory Body of the project. This initiative was led by the Basel Convention Regional Center for Central America and Mexico (BCRC-CAM) based in El Salvador, at the headquarters of the Central American Commission on Environment and Development (CCAD).

➤ **ASSISTANCE TO GOVERNMENT AGENCIES AND TRADE ASSOCIATIONS/ AGENCIES**

) Consultant for **DAI/USAID EATIH (East Africa Trade and Investment Hub/ USAID), 2017- 2018** under the framework of the Kenya National AGOA Strategy and Action Plan, aimed at maximizing benefits and providing market access to countries comprised within AGOA. Consultancy specifically addressed the cut flower sector and was part of the technical assistance provided by EATIH/ USAID to the Kenya Flower Council (KFC) and its members, aimed at gaining market intelligence on the US cut flower market to support Kenya’s intended expansion of its cut flower trade into North America. In synthesis, this work entailed conducting an end market analysis, gathering and analyzing information from the North American Flower Market including phytosanitary and quality requirements, and assisting the industry in making informed decisions to determine the potential for further growth and expansion and the technical areas needing strengthening. A mission to Kenya including workshops and visits to flower exporters and various other key stakeholders was undertaken.

) Consultant for **CBI – Centre for the Promotion of Imports from Developing Countries (2014- 2015)**. As part of the Netherlands Enterprise Agency, funded by the Netherlands Ministry of Foreign Affairs CBI provides support to exporters from 47 developing countries in about 25 productive sectors. The agency developed a comprehensive program in Ecuador in conjunction with EXPORTAPAS, an initiative launched by the Ecuadorian Government to promote and expand exports in seven different productive sectors including floriculture. This consultancy entailed providing support to flower exporters specifically interested in strengthening their participation in the North American market (particularly the United States but also Canada). This included information on the world flower market, identifying market opportunities for expanding access, analyzing consumer preferences, studying export requirements including phytosanitary issues and other topics. Export audits and export coaching sessions, including

tools for promotion and tradeshow participation were also conducted.

-) Consultant for the **INDUSTRIAL TECHNOLOGY RESEARCH INSTITUTE (ITRI) OF TAIWAN (2012)** Taiwan is keen on following the deadlines and timing assigned to developed countries of the Montreal Protocol and has phased-out all controlled uses of methyl bromide. Authorities are assessing the feasibility of reducing methyl bromide uses for Quarantine and Pre-shipment (QPS), which are presently not controlled by the Protocol, by adopting proven and available alternatives. Consultancy was provided on these issues to ITRI in 2012.
-) Consultant for the Brazilian Government (**SEAGRI/ AGROPOLOS INSTITUTE**, State of Ceará and **IBRAFLO/ FLORA BRASILIS program**, Holambra, State of Sao Paulo) for the identification and assessment of opportunities for Brazilian Flower Exports to the United States, Europe (particularly Italy, France, Portugal) and Japan, 2004 - 2008.
-) Consultant for the **MEXICAN FLOWER COUNCIL** as instructor on pest and disease management in chrysanthemums and carnations, flower quality, sustainable floriculture, flower eco-labels, the international flower market and other topics, for Mexican flower growers, 1999 – 2007.
-) Consultant **CORPORACION COLOMBIA INTERNACIONAL**, an organization created by the Colombian government for the promotion and development of non-traditional agricultural commodities (1996). This consultancy involved a feasibility study for developing floriculture and production of aromatic herbs as alternatives to wheat production in the southern region of Colombia (along the Ecuadorian border) and a study on the potential of asparagus production for export in the same location.
-) Coordination and setup of the **ECOFLO** program (**COLOMBIA, 1994 – 1997**), a private initiative of a group of flower growers sharing a strong commitment for producing flowers under environment friendly practices and adequate worker protection standards. ECOFLO members implemented a strict Code of Conduct in relation to all production practices and worker welfare issues (including prevention and mitigation of health hazards). The group created awareness among other flower growers and in 1996 became FLORVERDE®, the environmental program of ASOCOLFLORES of which 85% of the Colombian flower growers are members. The work with ECOFLO involved discussions and meetings with growers and company managers to help establish needs and priorities; farm visits to evaluate processes and helps resolve problems; creating a communication scheme with participants at different levels; and establishing initial performance indicators and indexes that could be used to evaluate and qualify compliance with the Code of Conduct.

OTHER WORK AND ACTIVITIES -----

-) Facilitator for **UNFCCC meeting** . Upon the invitation of the United Nations Framework Convention on Climate Change (UNFCCC) Secretariat, acted as facilitator for the Technical Expert Meeting on Non-CO2 greenhouse gases, working group session on F-gases held on Wednesday, 22 October 2014. This one day session took place during the Climate Change Conference (Ad Hoc Working Group on the Durban Platform for Enhanced Action (ADP), 20-25 October 2014 Bonn, Germany.
-) Speaker at numerous meetings and workshops related to methyl bromide alternatives, QPS uses of methyl bromide, integrated pest management, sustainable production, floriculture (various topics) and others in Colombia, Mexico, Brazil, Spain, Morocco, Portugal, Malawi, Costa Rica, Canada, Chile, United States, Hungary and others since 1994, to date. This includes meetings of Regional Ozone Networks, to provide information on methyl bromide uses, alternatives and other issues, including QPS.
-) Keynote invited speaker at the VII Symposium on Soil Disinfestation, ISHS (Leuven, Belgium, 2009).

- J Co-author of the chapter "Technology transfer to phase-out ODS in pest control" in the book *Technology Change and Transfer - Theories and Practice* (2007) by Stephen O. Andersen and Madhava Sarma (Eds) Earthscan, London.
- J Regular contributing author for several magazines and websites in the floriculture sector since 1993, FLORACULTURE INTERNATIONAL, FLOWER TECH, FRUIT AND VEGETABLE TECH, HORTIBIZ.
- J Keynote invited speaker at the V Symposium on New Floricultural Crops (Foz do Iguazu, Brazil, 2003) organized under the auspices of the International Society for Horticultural Science (ISHS).
- J Coordination and setup of the **ECOFLOR** program (1993-1996), a private initiative of a group of flower growers sharing a strong commitment for producing flowers under environment friendly practices and adequate worker protection standards. ECOFLOR members implemented a strict Code of Conduct in relation to all production practices and worker welfare issues (including prevention and mitigation of health hazards). The group created awareness among other flower growers and in 1996 became FLORVERDE®, the environmental program of ASOCOLFLORES of which 85% of the Colombian flower growers are members. The work with ECOFLOR involved discussions and meetings with growers and company managers to help establish needs and priorities; farm visits to evaluate processes and help resolve problems; creating a communication scheme with participants at different levels; and establishing initial performance indicators and indexes that could be used to evaluate and qualify compliance with the Code of Conduct.

➤ **WORK CONDUCTED WHILE IN EMPLOYMENT (1980 – 1993)** -----

FOR ASOCOLFLORES (1986 – 1993):

- J Organization of a Technical Committee which, through the participation of growers contributed in establishing the sector's research priorities and technological and information needs. The Technical Committee of ASOCOLFLORES still operates and is the body assisting the Technical Manager and the Board of Directors of the Association on many issues.
- J Organization of a large number of courses, seminars, workshops and symposia, local and international on topics related to floriculture, among them the First Latin American Symposium of Flowers and Ornamental Plants (Bogotá, Colombia, June 1989) and the Fourth International Symposium on Carnation, held also in Bogotá in September of 1991 under the auspices of the International Society for Horticultural Science, ISHS.
- J Contact with researchers and experts in many countries, particularly France, Italy, Israel and the United States, which were brought to Colombia as consultants, lecturers and to provide research support for the floriculture sector.
- J Organization and direction of the National Prevention and Eradication Campaign for Chrysanthemum White Rust (*Puccinia horiana*), a zero-tolerance quarantine disease for the USA, in close cooperation with APHIS and ICA (the Colombian Institute of Agriculture), which until now has guaranteed rust-free flowers to the United States and an open border for export of these flowers from Colombia to that country.
- J Representation of the Colombian flower industry before domestic and foreign bodies such as the Colombian Institute of Agriculture (ICA), the Colombian Institute for the Management of Natural Resources (CAR), the Animal and Plant Health Inspection Service in the United States (APHIS) and the Society of American Florists (SAF).
- J Setting up and direction of the Library at the Association, the only reference center specializing in floriculture in Colombia.

- J Evaluation and supervision of research projects funded by the Association, mainly related to pest and disease management in cut flowers and environmental issues related to flower production.
- J Setting up of a Plant Clinic for the diagnosis of pests and diseases in flowers and other horticultural products. The clinic provided assistance to growers aimed at improving flower quality through adequate pest and disease management and post-harvest handling.
- J Coordination of the study "The Environmental Impact of Commercial Flower Production in Colombia". The study identified critical areas needing implementation of Good Agricultural Practices (GAP) such as water and soil management, pesticide and fertilizer usage, waste classification and disposal and worker protection standards. This work served as the platform on which sustainable production programs and eco-labels for the Colombian flower industry were later based.
- J Analysis and follow up of information and developments leading to the recognition by law of Plant Breeder's Rights in Colombia.

FOR PROPAGAR PLANTAS (1984 – 1986):

- J Setting up of tissue culture facility and disease diagnosis lab. Coordinating and leading a team of four in charge of the organizations' plant health program. PROPAGAR PLANTAS is a licensed propagator of carnation varieties, selling rooted and un-rooted cuttings to carnation growers in Colombia and other Latin American countries.

FOR REVISTA GUIÓN (1980 – 1982)

- J Editor, science section. Revista Guión, was a well known, general interest weekly magazine in Colombia, and included a science section. Publication of this magazine ceased in the late 1990's.

➤ AWARDS AND DISTINCTIONS -----

- J "**Garofano D'Argento**" award 2019 version in the category "International Journalism", presented by the Floriculture Association of Sicily (Catania), Italy.
- J "**Technical Leadership Award**" presented by UNEP to the Technical and Economic Assessment Panel (of which I am a co-chair) on occasion of the 30th anniversary of the Montreal Protocol, November 2017 <http://conf.montreal-protocol.org/meeting/mop/cop11-mop29/awards/Shared%20Documents/Ozone%20Awards%20recipients.pdf>
- J Recipient of a special award presented by UNEP in recognition for contributions as a co-chair of the Methyl Bromide Technical Options Committee (MBTOC), of the Technical and Economic Assessment Panel (TEAP) and as co-chair of the "Decision XXIII/10 Task Force", November 2012
- J Recipient in the category "Individuals" of the 2007 Best-of the-Best Stratospheric Ozone Protection Award presented by the US Environmental Protection Agency in September 2007 <http://www.epa.gov/ozone/awards/bestofthebest/index.html>
- J Recipient of the **TEAP Champion Award** presented by UNEP (the Ozone Secretariat) on occasion of the 20th anniversary of the Montreal Protocol in September, 2007
- J Inclusion in the website **Montreal Protocol Who's Who** launched by UNEP in 2008 <http://www.unep.fr/ozonaction/montrealprotocolwhoswho>

- J Recipient in the category “Individuals” of the 2004 Stratospheric Ozone Protection Award granted by the US Environmental Protection Agency. www.epa.gov/Ozone/awards

➤ **SOCIETY MEMBERSHIPS** -----

Member of the American Phytopathological Society (**APS**) and the International Society for Horticultural Science (**ISHS**) since 1986.

➤ **LANGUAGES** -----

Spanish: Mother tongue.
Completely fluent in written and spoken **English**.
Good command of **French** (working ability)
Basic understanding of **Portuguese**

PUBLICATIONS -----

Besri, M., M. Pizano and I. Porter (2012). Soil solarization and the methyl bromide phase out. In: Gamliel, A. and J. Katan (Eds). *Soil solarization – theory and practice*. APS – American Phytopathological Society.

Castellá-Lorenzo, G., R. Savigliano and M. Pizano (2014). Breaking the bondage to methyl bromide in Agriculture – the UNIDO experience. *Acta Horticulturae* 1044:281-287

Lacy, G.H., R. C. Lambe and M. Pizano (1982). Bacterial Canker of Poinsettia. *Virginia Cooperative Extension Service, VPI & SU Plant Newsletter* 9:7.

Miller, M., M. Pizano and D. Okioga (2009). Going, going, almost gone: Methyl bromide phase-out in Africa. *OzonAction special issue 2009*. UNEP, Paris 36 pp

Miller, M. and M. Pizano (2007). Technology transfer to phase-out ODS in pest control. En: *Technology Change and Transfer – Lessons for Climate Change*. Por Andersen, S.O. and M. Sarma (Eds). Earthscan, London

MLF (2019). Desk study for the evaluation of the sustainability of the Montreal Protocol achievements” [UNEP/OzL.Pro/ExCom/84/12](http://www.unep.org/OzL.Pro/ExCom/84/12)

MLF (2012). Evaluation of Methyl Bromide projects in Africa – Desk study. UNEP/OzL.Pro/ExCom/66/15. March, 2012. <http://www.multilateralfund.org/66/English/1/6615.pdf>

MLF (2012). Evaluation of Methyl Bromide projects in Africa – Field study. UNEP/OzL.Pro/ExCom/68/11. November, 2012 <http://www.multilateralfund.org/68/English/1/6811.pdf> MLF. (2004a). desk study on methyl bromide projects. Multilateral Fund for the Implementation of the Montreal Protocol. Document UNEP/OZL.Pro/ExCom/43/8 <http://www.multilateralfund.org/sites/43/Document%20Library2/1/4308.pdf>

MLF. (2004b) Case Studies of the Desk Evaluation of Methyl Bromide Projects; June 2004. Multilateral Fund for the Implementation of the Montreal Protocol

MLF. (2004c). Field Study on the Evaluation of Methyl Bromide Projects. Case Study: Ecuadorian Flower Sector: a. Phase-out Project, b. Technical Assistance Project. Monitoring and Evaluation report. Multilateral Fund for the Implementation of the Montreal Protocol.

- MLF. (2005a). Status/ Prospects of Article 5 countries in achieving compliance with the control measures of the Montreal Protocol. Montreal, 21 – 25 November 2005. Multilateral Fund for the Implementation of the Montreal Protocol
- MLF. (2005b). Final Report on the evaluation of Methyl Bromide Projects. Montreal, 4-8 July 2005. Synthesis evaluation report (document UNEP/OzL.Pro/ExCom/46/7)
- MLF. (2005c) Evaluation of Methyl Bromide phase-out projects. Sub-sector reports and case studies. June, 2005. Reuben Ausher, Alejandro Valeiro, Marta Pizano, Jeurgen Boeye and Otto Mueck, Consultants
- MLF. (2006). Final evaluation report on case studies on non-compliance (Follow-up to decision 46/6). Multilateral Fund for the Implementation of the Montreal Protocol.
<http://www.multilateralfund.org/sites/46/Document%20Library2/1/4607.pdf>
- MLF (2007). Extended desk study on low volume methyl bromide projects. UNEP/OzL.Pro/ExCom/53/8 and Annexes 29 October 2007
- Pizano, M. (2019). The Kigali Amendment – Keeping cool without warming the planet. A toolkit for National Ozone Units. UNEP OzonAction (in press)
- Pizano, M. (2017). The US Flower Market. AGOA strategy and action plan. East Africa Trade and Investment Hub, Nairobi, Kenya, December 2017. <https://agoa.info/images/documents/15262/nairobiworkshopeatihsep14.pdf>
- Pizano, M. (2016). “Minimising QPS uses of methyl bromide – tools for controlling, monitoring and reporting” [http://www.unep.org/ozonaction/Portals/105/documents/7792-e-Minimisingquarantineandpre-shipment\(QPS\)usesofmethylbromide.pdf](http://www.unep.org/ozonaction/Portals/105/documents/7792-e-Minimisingquarantineandpre-shipment(QPS)usesofmethylbromide.pdf) UNEP Paris (2016) 67 pp.
- Pizano, M. (2014). The methyl bromide phase-out: A success story and its challenges. UNEP, Paris, 66 pp (publication also in Spanish and French) http://www.unep.fr/ozonaction/information/mmcfiles/7674-e-Phasing_out_methyl_bromide_in_developing_countries.pdf
- Pizano, M. (2012). Programa nacional de eliminación total del bromuro de metilo en México MP/MEX/08/001/1158-2009. Sector de flores y plantas ornamentales. Informe Final. ONUDI/ SEMARNAT, México 58 pp.
- Pizano, M. (2011) Análisis del uso de Bromuro de Metilo en Colombia. Perspectiva histórica y alternativas para su sustitución. Proyecto ONUDI/MP/COL/001 – COL/FUM/55/TAS/70. Instituto Colombiano Agropecuario ICA, Unidad Técnica del Ozono, Colombia, ONUDI. Bogotá, Colombia. 108 pp
- Pizano, M. (2010). Proyecto para la eliminación del Bromuro de Metilo en los sectores de melón, flores y tabaco de la República Dominicana MP/DOM/01/138/11-51. Informe Final. MARENA, PRONAOZ, ONUDI, Santo Domingo, República Dominicana, 60 pp.
- Pizano, M. (2010) Vision, developments and expectations in the horticultural sector in relation to the methyl bromide phase-out. In: *7th International Symposium on chemical and non-chemical soil and substrate disinfection*, Leuven, Belgium, 13-18 September, 2009. *Acta Horticulturae* 883: 49-56.
- Pizano, (2009). Alternatives to methyl bromide in the horticulture sector – progress in MB phase-out in developing countries. *Workshop on alternatives to methyl bromide, Agadir, Morocco*, April 25, 2009
- Pizano, M. (Ed) (2008). Phasing out Methyl Bromide in Turkey – Final Report. Turkish ministry of Agriculture, BATEM and UNIDO, Antalya, Turkey, 2008, 156 pp.
- Pizano, M. (2008). Alternatives to methyl bromide in protected horticulture with special reference to floriculture – the IPM approach. Pp 105 – 113 In: *Workshop on non-chemical alternatives to replace methyl bromide as a soil fumigant* (FAO), 26 – 28 June, 2007, Budapest, Hungary

- Pizano, M. (2008). Características del Mercado de Flores y Otros Productos Ornamentales de los Estados Unidos. Study prepared for IBRAFLO/ Flora Brasiliis, Government of Brazil 200 pp.
- Pizano, M. (2008). El Mercado Japonés de flores, plantas y otros productos ornamentales. Study prepared for IBRAFLO/ Flora Brasiliis, Government of Brazil, 69 pp
- Pizano, M. (2008). El Mercado Portugués de flores, plantas y otros productos ornamentales - perspectivas para las flores de Brasil. Study prepared for IBRAFLO/ Flora Brasiliis, Government of Brazil, 64 pp.
- Pizano, M. (2006). Italia, Francia y el Reino Unido: Perspectivas para las flores de Ceará, Brasil. Study prepared for SEAGRI, Secretariat of Irrigated Agriculture of the State of Ceará, Fortaleza, Ceará, Brazil 65 pp.
- Pizano, (2006). Methyl Bromide Phase-out under the Montreal Protocol with special reference to floriculture. En: *International Workshop on Alternatives to Methyl Bromide for strawberries and flowers*, August 22 –23, 2006 Ixtapan de la Sal, Mexico.
- Pizano, M. (2005). INTERNATIONAL MARKET TRENDS - TROPICAL FLOWERS. *Acta Horticulturae* (ISHS) 683:79-86. http://www.actahort.org/books/683/683_5.htm
- Pizano, M. (2004). Alternatives to MB for the production of cut flowers and bulbs in developing countries. *Proceedings of International Conference on Alternatives to Methyl Bromide* Sept 26 - 30, 2004, Lisbon, Portugal
- Pizano, M. (2004). Overview of alternatives to Methyl Bromide for cut flower production in industrialized countries. En: *Proceedings of International Conference on Alternatives to Methyl Bromide* Sept 26 - 30, 2004, Lisboa, Portugal.
- Pizano, M. (2004). Características del Mercado de Flores y Otros Productos Ornamentales de los Estados Unidos. Study prepared for SEAGRI, Secretariat of Irrigated Agriculture of the State of Ceará, Fortaleza, Ceará, Brazil, 202 pp. Study updated in 2008.
- Pizano, M. (2003). Tendencias actuales del mercado mundial de flores. *Memorias FRUTAL 2003*, Sept. 1-4, 2003, Fortaleza, Brazil.
- Pizano, M. (2003). Commercial adoption of alternatives to MB in floriculture in developing countries. En: *Annual International Research Proceedings of the Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions*, Nov. 3-6, 2003, San Diego, California, 31.1 – 31.4.
- Pizano, M. (2002). Alternatives to Methyl Bromide for use in Cut Flower Production. Pp 218 – 222 En: *Proceedings of International Conference on Alternatives to Methyl Bromide – The remaining challenges*. Seville, Spain, 5 – 8 March 2002.
- Pizano, M. (2002). Pasteurización y Manejo Integrado de Plagas – alternativas al Bromuro de Metilo. ONUDI– DINAMA – National Ozone Unit Montevideo, Uruguay, 53 pp.
- Pizano, M. (2001). Floriculture and the Environment – growing flowers without methyl bromide. UNEP/DTIE, Paris 115 pp. (also available in Spanish and French). <http://www.unep.fr/ozonaction/information/mmcfiles/3546-e.pdf>
- Pizano, M. (2000). Integrated Pest Management in Colombian Floriculture. Pp 203-208 En: *Methyl Bromide Alternatives for North African and Southern European Countries*. UNEP. 26-29 de Mayo de 1998, Rome, Italy, 244 pp.
- Pizano, M. (2000). Cut-flowers in Colombia – Integrated Pest Management. En: *Case studies on alternatives to methyl bromide: Technologies with low environmental impact*. UNEP Paris.
- Pizano, M. (2000). Alternativas al bromuro de metilo en la floricultura Colombiana. *INIA/ONU/ Taller sobre Alternativas al Bromuro de Metilo para Flores cortadas*. 6 April, 2000, San José, Costa Rica.

- Pizano, M. (2000). Alternativas al bromuro de metilo en la floricultura Colombiana. En: *INTA/ONU/UDI Seminario de cierre, Alternativas al Bromuro de Metilo para Flores Cortadas y Fresas*. 4-5 May, 2000, Buenos Aires, Argentina.
- Pizano, M. (Ed) (2000). Clavel. Ediciones Hortitecna Ltda, 181 pp.
- Pizano, M (Ed) (1999). Girasol. Ediciones Hortitecna Ltda 64 pp
- Pizano, M (Ed) (1999). Zantedeschia. Ediciones Hortitecna Ltda 64 pp
- Pizano, M. (1999). Alternatives to methyl bromide in Colombian floriculture. *UNEP/NTO Workshop on Alternatives to Methyl Bromide for Eastern and Southern African Countries*. 6-10 Sept 1999, Lilongwe, Malawi.
- Pizano, M. (1998). Producción Sostenible de Flores de Exportación. *Agric. de las Américas*, Ene/Feb1998: 10-15.
- Pizano, M. (Ed) (1997). Floricultura y Medio Ambiente: La Experiencia Colombiana. Ediciones Hortitecna, 352 pp. (Under the auspices of ASOCOFLORES)
- Pizano, M. (1994). The prevention and eradication campaign for chrysanthemum white rust (*Puccinia horiana* Pers.) in Colombia. NATO meeting, Ottawa, Canada, September 1994.
- Pizano, M. (1992). Consideraciones sobre la Dimensión Ambiental del Cultivo de Flores en Colombia. *Simposio sobre Desarrollo y Medio Ambiente. Cámara de Comercio Colombo - Suiza*, Bogotá, September 1992.
- Pizano, M. (1991). La Roya Blanca: Amenaza para las Exportaciones Colombianas de Pompón. *Agricultura Tropical* 28(1): 67-68.
- Pizano, M. (1989). La Roya Blanca del Crisantemo: Amenaza para las Exportaciones Colombianas de Crisantemo y Pompón. *Asocolflores* 20: 11-15.
- Pizano, M. (1987). Carnation Culture in Colombia: State of the Art. *Acta Hort.*307: 216: 29-34.
- Pizano, M. (1987). El Sistema de Indexación y la Eliminación de Virus en Clavel. *Asocolflores* 10: 12-14.
- Pizano, M. (1983). Bacterial Canker of Poinsettia (Thesis, M.Sc). VPI &SU, Blacksburg, USA
- Porter, I.J., M. Pizano, M. Besri, S.W. Mattner and P. Fraser (2010). Progress in the global phase out of methyl bromide and the relative effectiveness of soil disinfestation strategies. *Acta Horticulturae* 883: 59 - 66
- Porter, I.J., M. Pizano and M. Besri, (2007). Impact of the Montreal Protocol regulations on preplant soil use and trends in adoption of alternatives. En: *2007 Annual International Research Conference on Methyl Bromide Alternatives and Emissions Reductions*, Octubre 29 – Noviembre 2, San Diego, California, USA.
- Savigliano, R., M. Pugliese and M. Pizano (2014) High quality compost: a promising future for sustainable agro-industry in Morocco. *Acta Horticulturae* 1044: 119-125
- Singh, V.M., M. Maldonado and M. Pizano (Eds) (1989). En: *Proceedings, First Latinamerican Symposium on Flowers and Ornamental Plants. Primer Simposio Latinoamericano de Floricultura*. Junio 20 – 22, 1989, Bogotá, Colombia. Editorial Presencia, 418 pp.
- Tombolato, F.A.C. y M. Pizano (2011). Anturios. Ediciones Hortitecna Ltda
- Tombolato, F.A.C. y M. Pizano (2005). Alstroemeria. Ediciones Hortitecna Ltda. Bogotá, Colombia, 64 pp.

Valenzuela, M. and M. Pizano (1992). Distribution of Carnation Mottle Virus and Carnation Ringspot Virus in the Bogotá Sabana. *Acta Horticulturae* 307: 221-223.

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