

Nomination of Dra. Laura Bertha Reyes Sánchez for President of IUSS

Details of Nominee:

Title, Full Name, Date of Birth, Gender and Nationality.

Name: Professor Dra. Laura Bertha Reyes Sánchez.

Date of Birth: April 13th, 1950.

Gender: Female.

Nationality: Mexican.

Family information (Optional).

Single; mother of one daughter: Laura Alejandra Irazoque Reyes.

Current position and address plus Email address, Phone and Fax numbers

Chair of Soil Science at the Agricultural Engineering Department, and chair of General Chemistry (Physicochemical analysis of agricultural soils and plant species), at the Chemistry Department, both performed at the Faculty of Higher Studies of Cuautitlán: FES-C (its acronym in Spanish), of the National and Autonomous University of Mexico: UNAM (its acronym in Spanish).

Home address: Miramar 54, Cumbria. C. P. 54749. Cuautitlán Izcalli, México.

Work address: FES-Cuautitlán, Av. Primero de Mayo S/N, Santa María las Torres, C. P. 54740, Cuautitlán Izcalli, Estado de México.

Email address: lbrs@unam.mx

Phone: +52 55 1113-3178, **Cell phone:** +52 1 55 1066-2461

Language capabilities and level of competence/fluency in each (this must include a high level of competency in English).

Spanish: Native.

English: fluent.

Portuguese: medium level.

Statements attesting the good financial standing of both the nominee and of the National Society of which they are a member.

I am a member of the Mexican and Argentinean Soil Science Societies, and both are permanent funding bodies of IUSS.

The nominee is paid as a state employee by the National and Autonomous University of Mexico: UNAM. In case of being elected I will serve as a President for IUSS for the entire period.

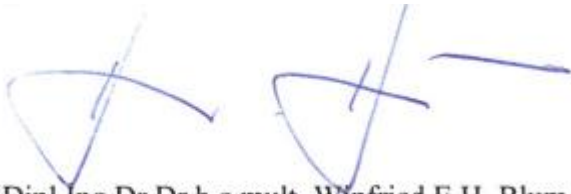
Details of Nominators and Signatories

Name, Position and Affiliation of both Nominators and evidence of their good financial standing in a National Society Member of IUSS

em.Prof.Dipl.Ing.Dr.Dr.h.c.mult. Winfried E.H. Blum. University of Natural Resources and Life Sciences (BOKU), Vienna. Peter-Jordan-Str. 82, 1190 Vienna, AUSTRIA

Prof. Prof.h.c. mult.Dr.Drh.c.mult Rainer Horn. Institute for Plant Nutrition and Soil Science. Hermann Rodewaldstr. 2, 24118 Kiel/ Germany. Past President International Union Soil Sciences IUSS.

Both nominators are paid as a state employee continuously and are paid members of their national Soil Science Societies.



em.Prof.Dipl.Ing.Dr.Dr.h.c.mult. Winfried E.H. Blum.



Prof. Prof.h.c. mult.Dr.Dr.h.c.mult Rainer Horn.



Prof. Dra. Laura Bertha Reyes Sánchez

Profile of the candidate

Academic background (degrees, level, awarding university, year; awards and prizes: fellowships)

EDUCATION, ACADEMIC ADVISORS:

Bachelor's degree in chemistry: 1976, National Autonomous University of Mexico: UNAM. Probative (1)
Soil science studies: 1979-1982, National Autonomous University of Mexico: UNAM. (Biology Science, with Edaphology orientation). Probative document (2)
Master of Science: 2003, University of the Valley of Mexico. (Science Education). Probative document (3)
Ph. D.: 2009, National University of Costa Rica and Technological Institute of Costa Rica. (Natural Sciences for Development). Advisors: Dr. Dennis Huffman Schwocho of the Autonomous University of Chapingo (México), and Prof. Dr. René Miranda Ruvalcaba of the National Autonomous University of Mexico: UNAM. Probative document (4)

AWARDS and FELLOWSHIPS:

University Merit granted by the National Autonomous University of Mexico: UNAM. 2000. Probative (5-6)
Summa Cum Laude Master Science: GPA 100 (in scale of 100). 2003. Probative (7)
Diploma of Excellence awarded by Sylvan International Universities. 2004. Probative (8)
Magna Cum Laude Ph. D. Diploma. 2009. Probative (9)
Honors award received by the Technological Institute of Costa Rica, 2009. Probative (10)
Appointment as Distinguished Visitor of the Old City of Guatemala, (As tutor of the Doctorate in Natural Resources for Development for the University of San Carlos of Guatemala). 2011. Probative (11)
Latin American Award of Soil Science. 2014. Probative (12 and 13)

Positions held (period, position, institution)

1972- 1974: Chemical analyst soil laboratory in the National Institute of Statistics, Geography and Information Technology: INEGI (its acronym in Spanish).
1975-1976: Assistant professor of physical chemistry and chemistry at the National Autonomous University of Mexico: UNAM.
1976-1977: Professor of chemistry and physical chemistry for chemical and agricultural engineers at the UNAM.
Since 1978: Professor of physical chemistry for chemical engineers at the UNAM. **Position won by opposition contest.** Probative (14) and promotion (15)
Since 1978: Chemistry professor for agricultural engineers at the UNAM. **Position won by opposition contest.**
1979-1982: Chemistry professor for agronomist at the Autonomous University of Chapingo (México). **Position won by opposition contest.** Probative (16)
Since 1980: Soil Science professor for agricultural engineers at the UNAM.
Since 1984: Definitively Chair of Soil Science at the Agricultural Engineering Department of the FES-Cuautitlán UNAM. **Position won by opposition contest.** Probative (17, 17b and 17c)
Since 1994: Full time professor at the National Autonomous University of Mexico: Chair of General Chemistry (Physicochemical analysis of agricultural soils, and plant species), at Chemistry Department of FES-Cuautitlán. **Position won by opposition contest.** Probative (18 and 19)
Since 1997: Definitively Chair of General Chemistry (Physicochemical analysis of agricultural soils, and plant species), at Chemistry Department of FES-Cuautitlán. **Won by opposition contest.** Prob.(20, 20a, 20b and 20c)

Summary of expertise and areas of academic/research interests

Chemistry, Soils and Education:Physical chemistry, Soil Chemistry and Green Chemistry: study and use of soil clays as catalysts to perform green chemical processes that reduce and/or eliminate the use of acids, bases and solvents as a way to reduce contaminants of soil and water; Soil Science teaching for college agricultural engineering students; education and teaching of Soil Science: especially education for children and young people, educational research, projects and networks of educational innovation in Soil Science with national and international links; didactics for soil science education, teachers' training of basic and pre-university education in Soil Science, dissemination of Soil Sciences and their interdisciplinary linkage with chemical and educational sciences (in Mexico, Argentina, Chile, Ecuador, Brazil); Green Chemistry training courses for professors and researchers (in Mexico, Chile, Costa Rica, Ecuador).

Summary of National and International activities (high level Committees, government service, consultancies etc.)

Author of the educational project “These are the Soils of my Nation[®]”, and the "Symposium of Educative Innovations on Teaching and Learning Soil Science" at national and Latin American level. Since 2000.

Author of the "National Network for Soil Science teaching and learning[®]: RENAECS (its acronym in Spanish), of the Mexican Soil Science Society. 2002.

President of the Latin American Network of Environmental Chemistry: RELACIAM (its acronym in Spanish). 2001-2003.

Spokesperson in education and teaching of soil science of the Mexican Soil Science Society. 2003-2004.

Since 2004: Chair of the "Latin American Network for Soil Science Teaching and Learning[®]", RELAECS (its acronym in Spanish).

Treasurer of the Mexican Soil Science Society. 2007-2009.

Secretary of Educational Innovations of the Mexican Soil Science Society. 2010-2011.

Since 2005: General Secretary of the Latin American Soil Science Society: SLCS (its acronym in Spanish).

Since 2006: General Secretary of the Latin American Network of Environmental Chemistry: RELACIAM (its acronym in Spanish).

2008-2017: Member of the Technical Council of the Mexican Committee for the Accreditation of Agricultural Education: COMEEA (its acronym in Spanish).

Since 2015: Chair of Pillar 2 of the Regional Alliance for Central America, Mexico and The Caribbean of the Global Soil Partnership¹, and Member of the “**Working Group Pillar 2: Encourage investment, technical cooperation, policy, education, awareness and extension in soil**”, of the Global Soil Partnership² of FAO.

Summary of publications (i.e. total numbers only [not individual titles] of publications in the following categories) 1975-2011:

a) books and monographs, 20

b) refereed international journals, 32

c) refereed chapters and reviews, 62

d) refereed published conference papers, 111

e) conference papers, 125

Citation and h-index as given by a reputable, internationally recognised citation compilation

Citations: approx. 1000 according to Scopus and Academic Google. (e.g. Teaching soil science: an strategy and warranty towards the future" (2012), Spanish Journal of Soil Science. **2**, 1, 87-99; consulted 518 times and downloaded as PDF file 383 times; videos viewed or downloaded > 1000)

An important Statement of intent including the Nominees' vision for the IUSS and outline of what the Candidate intends to achieve if elected as President.

The IUSS is constituted by 60,000 scientists around the world, but the number of inhabitants on this planet according to FAO is 7.5 billion, and the vast majority of them do not know why the soil is essential for their daily lives and an indispensable resource for the existence of life on Earth.

¹<http://www.fao.org/globalsoilpartnership/regional-partnerships/central-america/en/>

²<http://www.fao.org/global-soil-partnership/pillars-action/2-awareness-raising/en/>

Part of its essential tasks is the continuous updating of soil scientists through the production and distribution of scientific materials, holding symposia, conferences, workshops, etc.. However, the International Decade of Soils Program defines two large priorities: that "land degradation as the most insidious and underestimated challenge of the 21st century be defeated"³, and that "the main focus of our activities should be on school age children (who will be teenagers and young adults in 10 years' time)"⁴. Both tasks entail and demand that the IUSS as a scientific society

- is committed to the sustainability of the resource that is object of its study,
- aspires to define and lead both the processes of integral formation of its future scientists, as well as the citizen's awareness for the sustainability of the soil,
- creates a profound impact on the *educational* and *governance* environments, which requires diverse but concurrent actions

All these tasks will be in the focus of my presidency and will be furthermore promoted.

They can be subdivided as follows:

From the educational field:

- a) Promote the opening of the professional curriculum of soil science to interdisciplinarity, going deeper in the subjects of disciplinary specialization during degree studies.
- b) Encourage interdisciplinary synergies of inclusion of the soil topic in every areas of science.
- c) Promote and exercise at all educational levels the interdisciplinary and complex teaching necessary for the construction of sustainable development for the achievement of its objectives in every education level.
- d) Making of the WSD a great educational, conscientizing and interdisciplinary feast.
- e) A real emphasis on the education of children and young people as a priority requires the same effort to professionalize the teaching of soil science.
- f) Support the training of teachers of basic and secondary education.

Achieving soil sustainability through its governance implies:

- a) Opening up to the synergistic link with other disciplines and scientific societies to share the problems of deterioration, vulnerability and loss of soil resources and provide interdisciplinary solutions.
- b) Encourage and strengthen relations with organizations, societies, scientists and institutions of climate change.
- c) Create dissemination strategies that allow citizens to acquire knowledge on the recognition of soil as *a common good of humanity*⁵, developing a general perception on the need to protect it.
- d) Incorporating *diversity* and *equality* is urgent and essential.
- e) Intensify the coordination with the National Societies that form the IUSS.

³Horn, R. WSD 2017. Rome, Italy.

⁴International Decade of Soils Programme. 2016. IUSS Inter-Congress Meeting Document. p.121-123.

⁵SLCS. Mar del Plata Declaration. 2012. <http://slcs.org.mx/index.php/es/informacion-general/declaraciones/8-mar-del-plata>

f) Carry out the indispensable task of increasing the collaborative interaction with related organizations such as the UN, UNESCO, FAO, ICSU, etc., in order to achieve the objectives that have been set.

Organization of the Union:

In order to guarantee a high level of continuity and coherence that supports all the activities of the IUSS, we need

a) a permanent Secretariat working closely together with the Treasury,

b) to expand our financial base by also enlarging other funding resources.

c) to organize the annual celebration of the WSD and the preparation of the centenary of the IUSS-2024 in Rome as the great world celebration of the soil, is of vital importance to give this resource all visibility and attention: *putting the soil in the eyes of the whole world.*