

CURRICULUM VITAE



Personal Data:

First name and surname: **Cristian Ioan D. HERA**

Date and place of birth: December, 18, 1933, Ploiesti, Prahova County, Romania

Home address: 32, Spatar N. Milescu Str., 2nd District, Bucharest, Romania

Phone/fax: + 021 212 8654 / + 021 312 0209

Phone/fax: + 021 318 4474 / + 021 318 4478

E-mail: hera@acad.ro ; asashera@asas.ro

Parents: Dumitru and Maria HERA, both teachers in Brazi/Batesti commune, Prahova County (deceased)

Civil status: married - two children.

Spouse:

- *Georgia HERA* (maiden name *GHEORGHIU*)

Scientific researcher ,Mathematics / retired

Children:

- *Cristian Marius HERA*, electronics engineer, D.Sc.

- *Rodica BENYA HERA*, BA, chemist engineer, BA, International Relations, MA, international management.

Study, specializations and scientific documentations:

Elementary, secondary school, university and post-university studies

- 1940-1944 Elementary school in Brazi/Batesti Commune, Prahova County
- 1944-1948 Secondary school "Petru and Pavel", Ploiesti
- 1948-1952 Secondary school "Sfantul Gheorghe", Bucharest
- 1952-1953 Faculty of Agriculture/Section of Pedology and Agrochemistry, Agronomical Institute "Nicolae Balcescu", Bucharest (first year)
- 1953-1957 Faculty of Agrochemistry and Pedology - Academy of Agricultural Sciences "K.A.Timiriazev" Moscow (years II-V), Qualification "Agronomical engineer", specialty "Agrochemistry" with the recommendation to work in the field of scientific research.
- 1969 Doctor in agronomy, *Dissertation topic*: "The influence of different nitrogen fertilizers on the chemical transformations in soil and plant and on the yields obtained for the main field crops". *Scientific coordinator* - Acad. David Davidescu, Ph.D;D.Sc.
- 1973 Doctor in sciences - "Original results obtained in researches carried out between 1967-1973 on soil fertility studies and differentiated utilization of chemical fertilizers."

Post-university specializations:

- 1958 **Democratic Republic of Germany** - two months
The Academy of Agricultural Sciences, Institute for Mineral Fertilizers, Leipzig; Institute for Plant Nutrition, Halle
⇒ *Utilization of chemical fertilizers in agriculture of D. R Germany*
⇒ *The relationships soil – plants – fertilizers*
Prof. A. Kundler, Dr. J. Ansorge; Prof. W. Bergman, Prof. K. Kolbe, Prof. K.Schmalfuss
- 1962 **France** - three weeks
National Institute of Agricultural Research (INRA), Versailles,
Seminar: "*Differentiation of fertilizers rates for field crops*"
Prof. G. Druineau, Prof. L. Gachon, Prof. R. Schaminade, Dr. M. Coppnet

- 1963 **Sweden** - three weeks
 Uppsala University
“The correlation of results on soil analysis and fertilizer requirements”
 Prof. L. Wiklander, Prof. H. Egner, Prof. R. Janson, prof. W. Oslander
- 1965 **U.S.A. and Canada** - six months (FAO grant)
 Urbana University – Illinois
 Raleigh University- North Carolina
 Institute of Soil Science, Ottawa, Canada
“Fertilizers use, especially liquid nitrogen fertilizers. Interactions soil – plant – fertilizer”
 Prof. L. T. Kurtz, Prof. A. Paar, Prof. J. Fits, W.V. Barttolomew, Prof. E.I. Kamprath, Prof. E. McLean.

Scientific documentations (*initiated and sponsored by IAEA Vienna*):

- 1986 **Australia and New Zealand** - one month
 ⇒ *The Council for the Reorganisation of Science, Industry and Research (CSIRO), Canberra and Adelaide, Australia;*
 ⇒ *Research Station for Soil Science and Plant Crops - Ruakura, New Zealand.*
- 1990 **China and Japan** - one month
- Sapporo University, Hokkaido, Kyoto University, Japan
“Nuclear techniques in agriculture”
 - Universities and Research Institutes in Beijing, Dalian, Shenyang and Harbin/China;
“Soil fertility, plant nutrition, fertilizer use and environmental protection study”
 - attending to the 14th International Congress of Soil Science.

Scientific Titles:

- 1969 **Doctor in Agronomy**, Agronomic Institute “Nicolae Balcescu”, Bucharest (AINB)
- 1973 **Doctor in Science**, Agronomic Institute “Nicolae Balcescu” (AINB), Bucharest
- 1982 **Corresponding member** of the Academy of Agricultural and Forestry Sciences (AAFS)
- 1990 **Full member** of AAFS
- 1995 **Corresponding member** of the Romanian Academy
- 1995 **Honorary Professor** of the Chinese Academy for Agricultural Sciences, Institute for Atomic Energy Applications
- 1999 **Doctor Honoris Causa** - University of Agronomic Science and Veterinary Medicine (UASVM), Cluj-Napoca
- 2002 **Doctor Honoris Causa** - University of Agronomic Science and Veterinary Medicine (UASVM), Bucharest
- 2003 **Honorary Member** – Accademia dei Georgofili, Italy, on the anniversary of 250 years since the foundation of the Academy
- 2004 **Foreign honorary member** of the Russian Academy of Agricultural Sciences
- 2004 **Doctor Honoris Causa** - University “Alexandru Ioan Cuza”, Iași
- 2004 **Doctor Honoris Causa** - University of Agronomic Science and Veterinary Medicine (UASVM), Iași
- 2004 **Doctor Honoris Causa** - Academy of Agricultural Sciences "K.A. Timiriazev", Moscow
- 2004 **Full member** of Romanian Academy
- 2007 **Doctor Honoris Causa** – University “Ștefan cel Mare”, Suceava
- 2008 **Doctor Honoris Causa** - University “Ovidius” Constanta
- 2009 **Doctor Honoris Causa** – University of Agronomic Science and Veterinary Medicine Banat, Timisoara
- 2009 **Doctor Honoris Causa** - University “Transilvania”, Brasov

Foreign languages:

English, Russian, French, German.

Professional and administrative-management functions:

❖ *In Romania:*

⇒ *In research:*

- 1957-1960 **Research assistant**, *Agricultural Research Institute of Romania (ARIR), Bucharest*
- 1960-1962 **Scientific researcher**, *ARIR, Bucharest*
- 1962-1965 **Senior scientific researcher**, *Research Institute for Cereals and Industrial Crops (RICIC), Fundulea*
- 1965-1969 **Laboratory head** (*senior scientific researcher, second degree*), *RICIC, Fundulea*
- 1969-1991 **Head** of department (*senior scientific researcher, first degree*) *RICIC, Fundulea.*
- 1964-1982 **Scientific researcher coordinator** for Romania of the research programmes organized by the International Atomic Energy Agency (IAEA) Vienna, on the use of stable and radioactive isotopes aiming to improve the fertilizer utilization
- 1970-1981 **Scientific manager**, *RICIC, Fundulea*
- 1982-1991 **General manager**, *RICIC, Fundulea*
- 1982-1991 **Member** in Academy of Agricultural and Forestry Sciences Presidium
- 1985-1991 **President** of "Field Crops" Section - AAFS
- 1997-2001 **President** of "Field Crops" Section – AAFS
- 2001- 2009 **President** of the Academy of Agriculture and Forestry Sciences – AAFS- (*elected by the General Assembly of AAFS on 5 November 2001, re-elected by GA of AAFS on 8 December 2005*)
- 2002-2005 **Vice-president** of the National Council of the Ministry of Agriculture, Forests and Rural Development (**MAFRD**)

2004-present	Vice-president of the National College for Research-Development-Innovation of the Ministry of Education and Research (MER) (<i>elected by secret vote</i>).
2004-2006	Vice-president of the National Confirmation Council for university degrees, titles, diplomas and certificates of MER
2007 - present	President of the National Ethics University Council (MER)
2008 - present	President of the “Agricultural and Forestry Sciences” Section – Romanian Academy
2008 - present	Member of the Romanian Academy (RA) Presidium
2009 - present	Honorary President of the Academy of Agriculture and Forestry Sciences – AAFS - (elected by the General Assembly of AAFS on December, 2010)
2010	Vice President of the Romanian Academy (elected by the General Assembly AR, on 27 th April, 2010)

In Higher Education:

1958-1969	Assistant professor and lector (<i>part-time</i>), <i>Agrochemistry Section, Agronomic Institute "Nicolae Balcescu" (AINB), Bucharest</i>
1974-present	Doctor's degree scientific coordinator , <i>specialty Agrochemistry</i>
1990-1991	Associate professor , <i>AINB Bucharest, Agrochemistry Section</i>
1997-1998	Professor , <i>University of Agronomic Sciences and Veterinary Medicine (UASVM), Bucharest</i>
1999-present	Consulting professor , <i>UASVM, Bucharest</i>
2002-present	Honorary member of UASVM Senate, Bucharest
2007–present	Honorary member of the University “Stefan cel Mare” Senate, Suceava

Other Functions:

❖ In Romania

1960-1961	Scientific Secretary , <i>Romanian Academy (part-time)</i> , Section of Biological and Agricultural Sciences (<i>Section President - acad. Gheorghe Ionescu-Sisesti</i>)
1968-1984	President of the 4th Commission "Soil fertility and plants nutrition" of the <i>Romanian National Society of Soil Science (RNSSS)</i> .
1974-1994	Vice-president of RNSSS.
1999-present	President of the Commission for Soil Protection of the Romanian Academy.
2004-present	President of the Patrimony Commission, Romanian Academy

❖ ***In international organisms:***

1961-1964	Scientific secretary of the IV th Commission "Soil fertility and plants nutrition" - International Society for Soil Science (ISSS).
1964-1982	Scientific researcher , responsible for research international programs coordinated by IAEA, regarding utilization of stable and radioactive isotopes in rational use of fertilizers: wheat crop (1964-1968), corn crop (1968-1972), leguminous crop for beans (1972-1982).
1968-1991	Expert of the International Atomic Energy Agency (IAEA) - Vienna , guiding the specialists from different countries all over the world in the field of stable isotopes and radioactive use in the study of soil fertilization and fertilizers use
1971	President of the XII th General Assembly of the European Conference on Chemical Fertilizers, Bucharest.
1972	President of the United Nations Organization for Industry Development (UNIDO) Conference " <i>Chemical fertilizers and phytopharmaceutic substances production and utilization</i> "
1974-1978	President of the IV th Commission " <i>Soil fertilization and plants nutrition</i> " - ISSS - elected at the Xth World Congress in Soil Science - Moscow, 1974
1978-1982	Re-elected President of the IV th Commission of ISSS at the XI th World Congress organized in Edmonton, Canada.

- 1986-1996 **Member in Executive Committee** of *"The International Scientific Center for Fertilizers"* (CIEC, elected (for 4 years) at the IXth World Congress for Fertilizers, Budapest, Hungary (then re-elected)
- 1991-1997 **Head of the Research Section** - *"Isotopes use in the study of plants nutrition, fertilizers applying and water use, in vegetal production"*
Joint Division F AO /IAEA, IAEA, Vienna, Austria
- 1991-1997 **Memberin Commissions for Professor Titles Confirmation** (Kuala Lumpur - Malaysia, Gent - Belgium, Braunschweig - Germany, Budapest - Hungary).
- 1996 **President** of *International Scientific Center for Fertilizer"* (CIEC) elected as provisory president by the CIEC Presidium at Vienna, Austria June, 1996;
- 1997 **Elected President** at the XIth CIEC World Congress for Fertilizers, Gent, Belgium, in August, 1997.
- 2001-present **Re-elected as President of CIEC** at the XIIth World Congress, Beijing, China, August, 2001
- 2002-present **Member in IFA** (International Fertilizer Association) **Evaluation Commission** for awarding the International Prizes of Fertilizer
- 2002-present **Member in the Steering Committee of the Union of European Academies of Agricultural Sciences (UEAA)**; elected at Paris, France, October, 2002.
- 2005 **Vice-President** of the Union of European Academies of Agricultural Sciences (UEAA), Sankt Petersburg, Russia
- 2006 Re-elected as **President of CIEC** at the XIVth International Congress for Fertilizers, Chiang Mai, Thailand
- 2006-2008 **President** of the *Union of the European Academies of Agricultural Sciences*, elected in Bucharest, June, 2006, Romania

Editorial activity in Romania:

- 1958-1962 **Member in the Editorial Committee** - *ARIR Annals*
- 1962-1972 **Member in the Editorial Committee** - *RICIC Fundulea Annals*.

- 1964 **Member in the Editorial Committee** - volume IV "Soil fertilization and plants nutrition" - published on the occasion of the VIIIth World Congress in Soil Science - Bucharest.
- 1973-1981 **Assistant head editor** - *RICIC Fundulea Annals*.
- 1978-1992 **Main editor and the founder** of the "Theoretical and applied agro-phyto-technical problems", Review Bucharest
- 1982-1991 **Head Editor** - *RICIC Fundulea Annals*
- 1984-1990 **Member in the Editorial Committee** - "Vegetal production - Cereals and Technical Plants" Review, Bucharest.
- 1998 - 2005 **Member in the Editorial Committee** - "Cereals and Technical Plants" Review, AGRIS Publishing House, Bucharest
- 2007 - present **Member in the Editorial Committee** of the Journal "Romanian Agriculture" (coated ISI)

International Editorial Activity

- 1964 **Member in Editorial Committee** and author of "Soil Science Dictionary", published in Romanian, English, French, German and Russian
- 1991-1997 **Head Editor** of the "Soils Newsletter" Review, IAEA - Vienna, Austria.
- 1997- present **Member** in Editorial Committee of the "Journal of Crop Production", New York, USA.

Scientific activity initiated, organized, analyzed and evaluated in the framework of the technical assistance and scientific research programs, financed by IAEA Vienna between 1991-1996 in the following countries:

- 1991 Thailand, Indonesia, Malaysia, Egypt.
- 1992 Uruguay, Chile, Ecuador, Venezuela, Pakistan.
- 1993 Cameron, Turkey, Jordan
- 1994 Saudi Arabia, Qatar, Oman, United Arabian Emirates, Costa Rica, Nicaragua, Portugal
- 1995 China, Turkey.
- 1996 Syria, Myanmar, Iraq, Egypt, Ivory Coast, Ethiopia.

Regional and interregional courses initiated, organized and coordinated for the training of researchers and university professors, participants in the technical assistance and scientific research programs financed by IAEA Vienna:

1992	Santiago - Chile (regional – for Latin America);
1993	Seibersdorf, Austria (interregional).
1994	Ankara, Turkey (regional – for Europe and or Middle Orient)
1995	Seibersdorf, Austria (interregional)
1996	Bangkok, Thailand (regional – for Asia and the Pacific Area)
1997	Seibersdorf, Austria (interregional)
1998	Addis Abeba - Ethiopia (regional – for Africa)
1999	Irapuato - Mexico (regional – for Latin America)

Published scientific papers (as author and co-author):

- Books - Treaties - Monographs	25
- Scientific papers published in scientific journals	235
- Scientific papers published in foreign language	87
- Contributions with Scientific papers at international reunions	64
- Articles for the popularization and introduction of technical progress	62
- Technical-scientific handbooks	8
- Patents - innovations	9

National and international manifestations organized and coordinated

1970-2000	Agrophytotechnique Annual National Conferences in different areas in Romania
1991-1997	IAEA conferences and symposia, including Acapulco Symposium, Mexico, 1994
1996	CIEC X th International Symposium, Braunschweig, Germany
1997	XI th Fertilizers World Congress, Gent, Belgium
1998	CIEC XI th International Symposium, Pulawy, Poland

- 2000 CIEC XIIth International Symposium, Suceava, Romania
- 2001 CIEC XIIth Fertilizers World Congress, Beijing, China
- 2001 National Debate “Rational utilization and conservation of Romanian Soils”, Romanian Academy, under President of Romania’s patronage
- 2001 National Debate “Scientific research and sustainable agriculture” - AAFS
- 2002 CIEC XIIIth International Symposium, Tokat, Turkey
- 2002 Second Symposium of Field Crops Section – AAFS, “Field crops research methods in Romania”
- 2002 Symposium dedicated to the anniversary of 115 years from the birth of academician Gheorghe Ionescu-Sisesti, “Priorities of research science for field crops”, AAFS, Bucharest, Romania
- 2003 National Debate “Agriculture present problems in the context of European integration and globalization”, AAFS
- 2003 CIEC XIVth International Symposium, Debrecen, Hungary
- 2003 National symposium dedicated to the anniversary of 75 years since the foundation of the Agricultural Research Institute of Romania (ARIR)
- 2004 CIEC XVth International Symposium, Pretoria, South Africa
- 2005 National Debate “The Romanian village – today and tomorrow”, Romanian Academy
- 2006 CIEC XIVth International Congress, Chiang Mai
- 2006 The IVth General Assembly of UEAA, Bucharest, Romania
- 2007 CIEC XVIth International Symposium, Gent, Belgium
- 2007 Meeting of the UEAA, Simferopol, Ukraine
- 2007 Scientific Jubilee Session on the occasion of the 80 years since the foundation of the Agricultural Research Institute of Romania (ARIR), Bucharest, Romania
- 2008 The Vth UEAA General Assembly, Riga, Latvia
- 2008 BSBA Conference “Biotechnology-Science and Advance in the Black Sea Subregion”, Albena, Bulgaria
- 2008 CIEC XVIIth International Symposium, Cairo, Egipt`

Main research themes and fields:

- **Improvement of soil analysis methods and elaboration of theoretical bases for fertilizer necessary settlement**
- **Introduction in research thematic of modern methods for data processing** concerning fertilizer influence on some soil agrochemical indices and on main crops production and quality
- **Liquid nitrogen fertilizers research** and recommendation of technical solutions to use on field crops
- **Starting 1996, organization of fertilizer long-term experiences** in a country unitary system for the study of chemical transformations which take place in soil-plant system and the elucidation of some theoretic and practical aspects of soil fertility evolution, yields quality and environmental protection
- **Nuclear techniques utilization in agriculture**, especially the use of fertilizers labelled with stable and radioactive isotopes in experimentation and the establishment of some original formulas for estimation of radioactivity concept promotion and ^{15}N necessary.
- **Sustainable agriculture and performance**

Scientific Awards - Medals:

1972	Laureate of Romanian Academy with award "Ion Ionescu de la Brad"
1987	Order "Scientific Merit" first class
1992	Honorary member, Turkish Society of Soil Science
2000	National Order "Officer Merit", Decree no. 556 from 1 December 2000
2003	National Order "For Commander Merit", Decree no. 627 from 16 October 2003
2008	Gold Medal with SASH, "Stefan cel Mare" University, Suceava

Member in Romanian and international scientific societies:

1961-present	Romanian Society for Soil Science
1962-present	Romanian Society for Soil Science
1962-present	International Scientific Center for Fertilizers (CIEC)
1978-present	European Society - Nuclear Techniques in Agriculture
1990-present	Romanian Society of Agronomy

1990-present	European Society for Agriculture (founder member, December, Paris)
1992-present	American Society for Soil Science
1992-present	Turkish Society for Soil Science
1992-present	Malaysian Society for Soil Science
1994-present	Austrian Society for Soil Science

Synthesis of scientific publications

A. Carti in limba romana

- BORLAN, Zenoviu, **HERA, Cristian**, 1973, Metode de apreciere a stării de fertilitate a solului in vederea folosirii raționale a îngrășămintelor. Editura Ceres, Bucuresti, 487 pag.
- **HERA, Cristian**, BORLAN, Zenoviu, 1975, Ghid pentru alcatuirea planurilor de fertilizare. Editura Ceres, Bucuresti, 279 pag.
- **HERA, Cristian**, BORLAN, Zenoviu, 1980, Ghid pentru alcătuirea planurilor de fertilizare, (Editia 2-a) Editura Ceres, București, 341 pag.
- BORLAN, Zenoviu, **HERA, Cristian**, 1984, Optimizarea agrochimică a sistemului sol-plantă, Editura Academiei Române, București, 271 pag.
- **HERA, Cristian**, IDRICEANU, Alina, BOLOGA, Margareta, 1984, Tehnici Nucleare în Agricultură, Editura Științifică și Enciclopedică, București, 302 pag.
- **HERA, Cristian**, ELIADE, Gheorghe, GHINEA, Lucian, POPESCU, Ana, 1994, Asigurarea azotului necesar culturilor agricole, Editura Ceres, București, 283 pag.
- BORLAN, Zenoviu, **HERA, Cristian**, Bunescu, Ovidiu, 1990, Agrochimia fosforului – Aspecte actuale de interes practic si stiintific. Editura Ceres, Bucuresti, 239 pag.
- BORLAN, Zenoviu, **HERA, Cristian**, DORNESCU, Dumitru, KURTINECZ, Paul, RUSU, Mihai, BUZDUGAN, Ion, TANASE, Gheorghe, Fertilitatea si Fertilizarea solurilor - Compendiu de agrochimie – Editura Ceres, Bucuresti. 330 pag.
- **HERA, Cristian**, 1999, *Agricultura Durabilă-Performantă*, Editura AGRIS, București, 320 pag
- **HERA, Cristian**, 2000, *Metode de Cercetare în Cultura Plantelor*, Editura Agris, București, 201 pag.

- **HERA, Cristian, SCHIOPU, Dan, 2001, *Cercetarea Științifică și Agricultura Durabilă*, Editura AGRIS, București, 365 pag.**
- **HERA, Cristian, OANCEA, Ioan, 2002, *Folosirea rațională și conservarea solurilor românești*, Editura Academiei Române, București, 215 pag.**
- **HERA, Cristian, DOUCET, Ilaria, (coordonatori), 2002, *Priorități ale Cercetării Științifice în domeniul culturilor de câmp*, Editura CERES, București, 150 pag.**
- **HERA, Cristian, OANCEA, Ioan, 2003, *Probleme Actuale ale Agriculturii, în Contextul Integrării Europene și al Globalizării*, Editura AGRIS, București, 99 pag.**
- **HERA, Cristian, DOUCET, Ilaria, 2003, *75 de Ani de la Înființarea Institutului de Cercetări Agronomice al României*, Editura AGRIS, București, 261 pag.**
- **HERA, Cristian, 2006, *Lumea rurală – astăzi și mâine*, Editura Academiei Române, București, 313 pag.**
- **HERA, Cristian, 2007, *Cercetarea științifică în sprijinul agriculturii, ICAR 1927-2007 ASAS*, Editura Academiei Române, București, 694 pag**

B - Books in English

- KIRDA, C., MOUTONNET, P., **HERA, C.**, NIELSEN, D.R., 1999, *Crop Yield Response to Deficit Irrigation*. Kluwer Academic Publishers, Dordrecht, Boston, London, 258 pp.
- **HERA, C.**, SCHNUG, E., DUMITRU, M., DORNEANU, A., 2001, *Role of Fertilizers in Sustainable Agriculture*. AGRIS Publishing House, Bucharest, 550 pp.
- Ji, Lanzhu, CHEN, Guansiong, SCHNUG, Ewald, **HERA, Cristian**, HANEKLAUS, Silvia, 2003, *Fertilization in the Third Millennium-Fertilizer, Food Security and Environmental Protection*. Liaoning Science and Technology Publishing House, Shengyang, China, 1803 pp.
- **HERA, C.**, SCHNUG, E., ERSAHIN, S., GUNAL, H., 2003, *Fertilizers in Context with Resource Management in Agriculture*. Gaziosmanpasa University Press, Tokat, Turkey, 650 pp.
- **HERA, C.**, KLEPS, C., 2006, *Editors of the book "Soil fertility and the future of agriculture in Europe"*, Publishing House of the Romanian Academy, Bucharest, 255 pp.
- HANEKLAUS, Silvia, **HERA, C.**, RIETZ, R-M., SCHNUG, E., 2008, *Fertilizers and Fertilization for Sustainability in Agriculture: The First World meets the Third World*

– Challenges for the Future, Terra Nostra, Iasi, 362 pp.

- **HERA, C.**, HOFFMANN, V., RIVZA, Baiba., 2008, Renewable Energy Resources, Production and Technologies, “Zinătne” Publishers, 191 pp

C – Some articles published in Romanian language

- PAVLOVSCHI, Gheorghe, **HERA, Cristian**, 1958, Fenomenul de adsorbție ca mijloc de cercetare analitică, Revista de Chimie, nr. 6, București.
- PAVLOVSKI, G., **HERA C.**, 1959, Contributii la studiul conditiilor de fixare a azotului amoniacal in sol in vederea controlului incorporarii . Revista de chimie nr. 5, Bucuresti.
- MILITESCU Livia, GRUIA E., **HERA C.**, 1960, Influenta plantei premergatoare continutului in substante nutritive din solsub cultura graului de toamna. Comunicarile Academiei R.P.R.,Bucuresti,X,pag.896-899.
- **HERA C.**, Manuca, O.,1960, Metode de analiza in serie a solurilor, in vederea aplicarii ingrasamintelor. Analele Institutului de Cercetari Agronomice, Bucuresti XXVIII, A pag. 251-253.
- **HERA C.**, DAVIDESCU, D, VINES, Iuliana,1961, Influenta apelor amoniacale si a amoniacului anhidru asupra productiei de ovaz. Comunicarile Academiei R.P.R.,Bucuresti, XI,pag.553-558.
- DAVIDESCU, D, **HERA C.**, 1963, Eficienta folosirii unor ingrasaminte lichide cu azot.Revista Internationala de Agricultura,2,Bucuresti, pag. 38-64.
- DAVIDESCU, D., **HERA C.**, 1964, Eficienta diferitelor forme de ingrasaminte cu azot asupra principalelor plante de cultura, Lucrari stiintifice IANB,VII,A,Bucuresti.
- **HERA, C.**, 1964, Problema folosirii ingrasamintelor lichide cu azot in R.P.R., Vol. 1. Ingrasaminte. Simpozion de Agrochimie, Bucuresti, pag. 84-96.
- **HERA, C.**, SUTEU, G., 1966, Determinarea eficientei ingrasamintelor cu azot la cultura porumbului prin folosirea N¹⁵ . Analele LC.C.P.T. - Fundulea, XXXII, B, pag. 137-149.
- **HERA, C.**, TABARANU, T., NICOLAE, A., 1967, Efectul ingrasamintelor lichide cu azot asupra graului de toamna cultivat in monocultura si asupra insusirilor agrochimice ale cemoziomului mediu levigat de la Fundulea. Analele LC.C.P.T. - Fundulea, XXXIII, B, pag. 181-192.
- **HERA, C.**, SUTEU, G., BOLOGA, Margareta, 1967, Cercetari in camp si laborator

cu 15N si 32p privind absorbtia de catre porumb a principalelor elemente nutritive din ingrasaminte. Editura Agro-Silvica, Bucuresti. Conferinta nationala de stiinta solului, pag. 124-136.

- **HERA, C.**, 1968, Cercetari privind folosirea ingrasamintelor lichide cu azot la floareasoare lui. Analele LC.C.P.T. - Fundulea, XXXIV, B, pag. 573-580.
- **HERA, C.**, SUTEU, G., BOLOGA, Margareta, 1969, Studiul eficientei ingrasamintelor cu N si P la porumb si al coeficientilor lor de utilizare prin folosirea 15N si 32p. Analele ICCPT Fundulea, XXXV, B, pag. 469-480.
- SUTEU, G., **HERA, C.**, BORLAN, Z., BOLOGA, Margareta, 1969, Stimularea absorbtiei de catre pommb a azotului aplicat in benzi impreuna cu superfosfatul. Analele LC.C.P.T. Fundulea, XXXN, B, pag. 481-493.
- **HERA, C.**, TRIBOI, E., ISFAN, D., 1971, Contributii la metodica interpretarii rezultatelor din experimentele cu ingrasaminte (metoda suprafetelor de raspuns). Analele LC.C.P.T. - Fundulea, XXXVII, B, pag. 53-66.
- **HERA, C.**, MILIA.ILA., V., CREMENESCU, G., 1972, Aspecte privind efectul ingrasamintelor cu potasiu la grau si porumb. Analele LC.C.P.T. - Fundulea, XXXVIII, B, pag. 141-150.
- **HERA, C.**, BURLACU, G., TRIBOI, E., 1973, Studii privind levigarea azotului din ingrasaminte prin folosirea 15N. Analele LC.C.P.T. - Fundulea, XXXIX, B., pag. 13-20.
- TRIBOI, E., **HERA, C.**, 1973, Fertilitatea fosfatica a solurilor si fertilizarea cu fosfor. Analele LC.C.P.T. - Fundulea, XXXIX, B., pag. 31-46.
- FLAIG, W., **HERA, C.**, SOCHTIG, H., SALFELD, CR., ELIADE, G., GHINEA, L., 1977, Unele modificari ale sistemului substantelor humice sub influenta irigarii si fertilizarii. Publicatiile SNRSS, Craiova, 1977, pag. 16-41.
- **HERA, C.**, TONCEA, I., 1977, Unele aspecte ale eficientei economice a aplicarii ingrasamintelor la grau si porumb. Analele LC.C.P.T. - Fundulea, XLII, pag. 119-128.
- **HERA, C.**, BURLACU, G., 1978, Studiul eficientei ingrasamintelor minerale si organice in experiente de lunga durata. Analele LC.C.P.T. - Fundulea, XLIII, pag. 163-174.
- **HERA, C.**, ELIADE, G., 1978, Evolutia unor indici ai fertilitatii solului in experiente de lunga durata cu ingrasaminte, Analele ICCPT Fundulea, XLIII, pag. 175-180, Bucuresti. .

- **HERA, C.,** POPESCU, Ana, PAPACOSTEA, P., 1979, Asociatii fixatoare de azot la plante leguminoase. Publicatiile SNRSS. Lucrarile Conferintei Nationale pentru Stiinta Solului, Brasov. Editura Agro-Silvica, Bucuresti, pag. 1-6.
- **HERA, C.,** CORBEAN, Stela, 1980, Influenta fertilizarii cu azot si fosfor si a cantitatii de precipitatii asupra productiei si a acumularii azotului in bobul de porumb. Analele LC.C.P.T. -Fundulea, XLV, pag. 145-154.
- **HERA, C.,** 1980, Aspecte teoretice si practice ale cercetarilor din domeniul agrofitehniei. Probl. agrofite. teor. aplic., Bucuresti, I, 1, pag. 5-20.
- **HERA, C.,** 1980, Unele probleme teoretice ale fertilizarii cu 1turilor agricole din Romania, Probl. agrofite. teor. aplic., Bucuresti, II, 3, pag. 309-312.
- POPESCU, S., **HERA, C.,** IDRICEANU, Alina., VINES, Iuliana., CORBEAN, Stela, 1981, Influenta factorilor tehnologiei asupra continutului si calitatii proteinei la grau. Probl. agrofite. teor. aplic., Bucuresti, III, 1, pag. 1-20.
- MIHAILA, V., **HERA, C.,** CORBEAN, Stela, 1981, Influenta dozelor de azot si fosfor si a interactiunii dintre acestea asupra continutului si productiei de proteina la grau, porumb si fasole. Probl. agrofite. teor. aplic., Bucuresti, vol. III, m. 1, pag. 49-63
- MIHAILA, V., **HERA, C.,** 1981, Eficienta economica a aplicarii ingrasamintelor intr-o rotatie de cinci ani. Analele LC.C.P.T. - Fundulea, XLVII, pag. 153-160.
- **HERA, C.,** TONCEA, I., STAN, Silvia, 1982, Modificarea unor indici agrichimici ai cernoziomului mediu levigat, a anatomiei, fiziologiei si productivitatii porumbului pentru boabe, ca urmare a fertilizarii cu ingrasaminte fosfatice. Probl. agrofite. teor. aplic., Bucuresti, 4, 1, pag. 1-22.
- **HERA, C.,** GHINEA L., 1982, Impactul chimizarii agriculturii asupra calitatii recoltelor. Probl. agrifite. teor. aplic., Bucuresti, vol. 4, m. 4, pag. 267-284.
- **HERA, C.,** ELIADE, G., GHINEA L., 1986, Contributii ale cercetarii stiintifice ramanesti privitoare la rolul materiei si fertilitatea solurilor. Probl. agrifite. teor. aplic., Bucuresti, vol. VIII, 2, pag. 119-133.
- **HERA, C.,** CHIRITA, Valeria, GHINEA, L., 1986, Optimizarea regimului azotului din sol prin folosirea inhibitorilor enzimatiei. Influenta inhibitorilor enzimatiei asupra dinamicii nitratilor din sol si productiei agricole. Probleme de Agrofitehnie teoretica si aplicata, VIII, 2, Bucuresti.
- **HERA, C.,** PETRE, M., 1987, Cercetari privind fertilizarea foliara la grau si porumb. Probl. agrofite. teor. aplic., Bucuresti, vol. XI, 1, pag. 17-30.

- **HERA, C., PETRE, M., 1988, Metoda de aplicare - element tehnologie important in folosirea rationala a ingrasamintelor cu azot. Probl. agrofit. teor. aplic., Bueuresti, vol. X, 4, pag. 297-305.**
- **HERA, C., 2002, Fertilitatea solului, factor hotarator in dezvoltarea durabila si performanta a agriculturii Romaniei, Folosirea rationala si conservarea solurilor romanesti, Editura Aeademiei Romane.**

D – Some articles published in foreign languages

- **DAVIDESCU, D., GRUIA, E., HERA, C., 1958, Contributions a l'etude du phenom€me de fixation des phosphates et la caracterisation du degre d'activite des ions qui les aeeompagnement, Estratta, dalli Atti del "II Simposio Internazionale de Agraehimiea" Praeehio (Isola d'E1ba), pp. 27/38.**
- **HERA, C., 1961, K voprasu' ob interpretirovania rezultatov himieeseogo analiza poeivi sviazi s opredeleniem nujaemosti v udobrenii. The 4th World Congress of Fertilizers, Beograd, Jugoslavi, pp. 223-229.**
- **HERA, C., 1964, L'etude des changement chimique dans le systeme sol-plant, a la suite de l'incorporation des differentes formes d'engrais azotes. 8th World Congress of Soil Science, Vol. Com. IV, Bucarest.**
- **HERA, C., 1967, Development and standardization of experimental techniques involving isotopes for conducting field experiments. IAEA TECHDOC, Vienna, Austria.**
- **HERA, C., SUTEU, G., BOLOGA, Margareta., 1967, Field experiment with ¹⁵N on efficiency of fertilizer utilization for maize. TECDOC - Vienna, pp. 159-178.**
- **HERA, C., SUTEU, G., BOLOGA, Margareta., 1968 - Field experiment with ¹⁵N an efficiency of fertilizer utilization for maize. Com IV, I, paper, 494 Adelaide The IXth World Congress of Soil Science, pp. 864-882.**
- **HERA, C., 1970, Effect of fertilizer on protein production using ¹⁵N. FAO/IAEA Symposium on Plant Protein Resources, Vienna, pp. 36-44.**
- **HERA, C., 1971, Response and current fertilization practices of grain legume crops in Romania. Panel on "The use of isotopes for study of fertilizer utilization by legume crops", IAEA Publication No. 149, Vienna, pp. 158-182.**

- **HERA, C**, BORLAN, Z., TRIBOI, E., 1973, La fertilisation, moyen de base pour accroître la capacité de production des sols acides, Bulletin de l' Academie des Sciences, Agricole et Forestieres, Bucarest, no. 2, pp. 5-28.
- **HERA, C.**, CORBEAN, Stela, STAN, Silvia, IDRICEANU, Alina, 1975, L'effet des engrais minéraux et du fumier sur l' équilibre NPK dans les grains de ble. Bulletin de l'Academie de Sciences Agricoles et Forestiers, Bucarest, no. 5, pp. 47-62.
- **HERA, C.**, 1976, Effect of inoculation and fertilizer application on the growth of soybean in Romania. In: Symbiotic Nitrogen Fixation in Plants, Cambridge University Press, pp. 269-279.
- **HERA, C.**, POPESCU, Ana, PAPACOSTEA, P., 1977, The ways of extending the nitrogen-fixing capacity to non-leguminous plants. Symposium on soil biology, Cluj-Napoca, pp. 15-27.
- **HERA, C.**, 1979, The contribution of isotopes and radiation techniques to the development of agricultural production in -Romania. Isotopes and radiation in research on soil-plant relationships. IAEA, S596, Vienna, Austria.
- **HERA, C.**, ELIADE, G., 1981, La dynamique de l'azote dans les soie irrigues. Probl. Agrofit. Teor. aplic., Bucarest, III, 3, pp. 211-218.
- **HERA, C.**, ELIADE, G., 1981, La lessivage de l'azote dans les sole de Roumanie. Causes, effets et possibilites de combattre. Probl. Agrofit. Teor. aplic., Bucarest, III, 4, pp.307-320.
- **HERA, C.**, POPESCU, Ana, 1986, Researches on symbiosis between *Rhizobium japonicum* and soybean, Eurosoya, Rome, 4, pp. 72-90.
- DANSO, S.K.A., **HERA C.**, DOUKA, C., 1987, Nitrogen fixation in soybean as influenced by cultivar an *Rhizobium* strain. Genetic aspects of Plant mineral nutrition. Martinus Nijhoff Publishers, DordrechtBostoniLancaster, pp. 511-522.
- **HERA, C.**, ELIADE, G., BOLOGA, Margareta, 1988, Devenir des engrais azotes dans le sol, Bulletin de l'Academie des Sciences Agricole set Forestieres, no. 17, pp. 65-82.
- **HERA, C.**, TIANU, Mihaela, ELIADE, G., 1991, Contribution of nitrogen from soi land fertilizer to sunflower yield in trials with ¹⁵N. IAEA - Proceedings SM-313, pp. 408410.
- **HERA, C.**, 1993, Contribution of nuclear techniques to the assessment of nutrient availability for crops. Proceedings of the expert consultation on Integrated Plant

Nutrition Systems, FAO Rome, pp. 1-25.

- KIRDA, C., **HERA, c.**, 1993, A co-ordinated research effort on screening of field crops for salt tolerance and biological amelioration of salt affected soils. Proceedings ISSS Conference, Bangkok, pp. 132-144.
- Mihaila, V., **HERA, C.**, 1994, Some recent results from the long-term experiment at Fundulea, Romania. In "Long-term Experiments in Agricultura land Ecological Sciences", London, pp. 220-227.
- VAN CLEEMPUT, O., **HERA, C.**, 1994, Fertilizer nitrogen use and efficiency in different cropping systems. Transactions - 15th World Congress of Soil Science, Volume 5a, Acapulco - Mexico, pp. 437-450.
- **HERA, C.**, 1996, The role of inorganic fertilizer and their management practices. Fertilizers Research 43, 63-81, Kluwer Academic Publisher, The Netherlands.
- **HERA, C.**, 2002, Soil fertility, a decisive chain for sustainable and performing agriculture. Tartakiserletek, Tajtermesztes, Videkfejlesztés, Debrecen, Hungary.
- **HERA, C.**, POPESCU, Ana, MIHAILA, V., 2006. Soil – the guarantee of sustainable development and food security. In Soil fertility and future of agriculture in Europe. Publishing House of the Romanian Academy, Bucharest. pp. 25 – 38.
- **HERA, C.**, KLEPS, C., 2007, Main issues of environment protection in Romanian agro-ecosystem in the context of global climatic changes. In environment protection in agro-ecosystems. Agrarna Nauka, Kiev, Ukraine, pp. 69 – 83.
- **HERA, C.**, 2008. Potential and limits of renewable energy sources. In Renewable Energy Resources, Production and Technologies. ZINATNE Publishers, Riga, Latvia. pp. 9 – 14.

E – PATENTS

- **HERA, C.**, GEORGESCU, I., 1960, Dispozitiv pentru aplicarea îngrășămintelor lichide. C.I. nr. 6541960. (Device for the liquid fertilizers application.).
- BORLAN, Z., **HERA, C.**, HANDRA, Margareta, NEBUNELEA, Dobrita, 1975, Metoda de extracție a formelor ușor solubile de fosfați de potasiu di sol. C.I. nr. 60258/1975. (Method for the extraction of easy-soluble forms of the potassium phosphates from the soil).

- BORLAN, Z., **HERA, C.**, TIGANAS, Letitia, DORNESCU, D., 1986, Compozite fertilizantă pentru prevenirea dereglărilor trofice la porumb și floarea soarelui și procedeu de aplicare. C.I. nr. 89797/1986. (Fertilizant composite for the preventive of trophic disorder at corn and sunflower and application method).
- BORLAN, Z., **HERA, C.**, DORNESCU, Dobrita, BUNESCU, O., BOGACI, Roxana, GRACIUN, C., NEBUNELEA, Dobrita, 1988, Amendament acidifiant și procedeu de obținere. C.I. nr. 95689/1988. (Acidifying amendment and the obtaining procedure).
- BORLAN, Z., **HERA, C.**, DORNESCU, D., BUNESCU, O., BOGACI, Roxana, NEBUNELEA, Dobrita, 1988, Procedeu de îmbunătățire a nutriției plantelor pe soluri saturate cu baze. C.I. nr. 96462/1988 (Proceeding of plant nutrition improvement on the base-saturated soils).