

Curriculum Vitae

1. **Name:** Pedro Antonio Arraes Pereira
2. **Birth date:** 13 - 04 - 1953.
3. **Birth place:** Rio de Janeiro, Brazil
4. **Citizenship:** Brazilian
5. **Parents:** Jarbas Veríssimo Pereira
Elisabeth S. Arraes Pereira
6. **Marital status:** Married
7. **Spouse's full name:** Doris de Castro Pereira
8. **Children :** Tatiana Arraes de Castro Pereira
Antonio Luiz Arraes de Castro Pereira
Carolina Arraes de Castro Pereira
9. **Profession:** Agronomist
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2. EDUCATIONAL QUALIFICATIONS

2.1. Undergraduate School:

- a. Basic Degree: Agronomist (B.S).
- b. University Federal Rural do Rio de Janeiro City: Rio de Janeiro, Brazil
- c. Year received: 1979

2.2. Graduate School:

2.1.1. Masters degree

- a. Major field of study: Plant Genetics and Plant Breeding
University: University of Wisconsin Madison, USA, Year received: 1985.

2.2.2. Doctoral degree

- a. Major field of study: Plant Genetics and Plant Breeding

Thesis: Improvement of N₂ Fixation in common beans (*Phaseolus vulgaris* L.) At different levels of available phosphorus. University: University of Wisconsin-Madison USA. Year received: 1987.

2.2.3. Pos-Doc

a. Major field of study: Molecular genetics and molecular markers in common bean. University: University of California – Davis, 1996.

2.2.3 Languages

Portuguese: speak well; Write well

English: Speak well; write well

Spanish: Speak well; write fair

3. SHORT TRAINING COURSES

3.1. Course on Research Management

Embrapa, Niterói, Rio de Janeiro, Brazil

Period: 13/10/91 a 26/10/91

3.2. Course of Quality and Sensibility

Secretary of Strategic Affairs

Period: 29/3/1994 to 30/3 '1994

3.3. Course of Management of Embrapa

Embrapa, Salvador, Bahia, Brazil.

Period: 13/7/1998 to 18/7/1998

3.4. Course How to write a Convincing Proposal: Strengthening

Project Development, Donor Relations, and Resource

Mobilization in Agriculture Research

International Service for National Agricultural Research

The Hague, Holland

Period 3/7/2000 to 8/7/2000

3.5. The Second CGIAR Senior Leadership Program

Harvard Business School

Period: 26/02/2006 to 3/3/2006

4. PROFESSIONAL EXPERIENCE

4.1. Research

Host country PI of the project Enhancement of Nitrogen Fixation in Common bean.

Period 1985 to 1991

Institution : University of Wisconsin/CRSP USA

4. 2. Host country PI of the project Nitrogen Fixation in common beans.

Period 1982 to 1988

Institution : IAEA Austria

4.3. Host country PI of the project Resistance to Bean Bruchid using the protein Arcelin

Period : 1988 to 1992

4.4. Principal investigator of the project Improvement of yield in common bean (*Phaseolus vulgaris*) through mutation breeding

Period: 1990 to 1991

Institution : IAEA Austria

5. COORDINATION OF NATIONAL RESEARCH PROJECTS

5.1. Nitrogen fixation in common beans.

Institution: FINEP

Period: 10/ 1981 a 08/1983

5.2. Comparison of breeding methods to improve nitrogen fixation

Institution: Embrapa

Period: 01/1988 a/07/1991

5.3. Introgression of nitrogen fixation potential from wild into cultivated common beans.

Institution: Embrapa

Period 01/1989 a 06/1991

5.4. Frequency of electrophoretic phaseolin types on Brazilian common bean landraces

Institution: Embrapa

Period: 01/89 a 07/90

6. ADMINISTRATIVE EXPERIENCE

President of Embrapa Committee of Intellectual property Rights

Period: 1996 to 1997

Manager of the Program Productivity of Cereals

General Government Plan (PPA)

Period: 01/2000 to 09/2003

Director of Research of the National Rice and Beans Research Center

Period: 1989 to 1995

General Director of the Embrapa National Rice and Beans Research Center

Period: 1997 o 2004

Member of the Agribusiness Committee representing the Ministry o Agriculture of Brazil

Period: 2001 to 2003

Embrapa Labex-USA coordinator

Period: 04/2004 to the present

7. PARTICIPATION ON INTERNATIONAL MISSIONS

7.1. EMBRAPA representative at Regional Consultation on CIAT, Activities on Integrated Pest Management/Rice Crop. 12 O 13 July of 1988 CIAT, Cali, Colombia.

7.2. EMBRAPA representative on the Conference International of rice. 21 a 25 of April of 1992.

7.3. EMBRAPA representative on the Workshop on transfer of Agropastoral Systems for Neotropical Savannas. 6 to 10 of December de 1993. CIAT, Cali , Colombia.

7.4. EMBRAPA representative on the discussions about germplasm enhacement among Brazil Argentine and Uruguay 9 a 13 of may of 1994. Conception del Uruguay.

7.5. EMBRAPA representative on the international conference of rice. 13 a 17 de February de 1992. IRRI.

7.6. EMBRAPA representative on "Latin American Bean Breeding workshop for twenty-first Century. 23 de October to 1 de November de 1996. CIAT, Cali Colombia

7.7. Brazilian government representative on 19th Session of the International Rice Commission (IRC). 7 to 9 of September 1998 Cairo, Egypt.

7.8 Brazilian government representative on the meeting of International year of Rice organized by FAO. From 5 to 7 of March 2003 Rome Italy.

7.8. EMBRAPA representative on The Technical Meeting for The Challenge Program on Unlocking Genetic Diversity in Crops for the Resource Poor. 24 to 29 of August 2003 Wageningen, Holland

8. SCIENTIFIC PAPERS

8.1. Pereira P A A, Baldani J I Dobereiner J & Neyra C A 1981. Nitrate reduction and nitrogenase activity in excised corn roots. Can J. Bot. 59:2445-2449.

- 8.2. **Pereira P A A** Dobereiner J & Neyra C A 1981. Nitrogen assimilation and dissimilation in five genotypes of *Brachiaria* spp. Can J Bot 59:1475-1479.
- 8.3. **Pereira P A A** & Bliss F A 1987. Nitrogen fixation and plant growth of common bean (*Phaseolus vulgaris* L.) at different levels of phosphorus availability. Plant and soil 104:79-84.
- 8.4. **Pereira P A A**, Burris R H & Bliss F A 1989. ¹⁵N determined dinitrogen fixation potential of genetically diverse bean lines (*Phaseolus vulgaris* L.) Plant and Soil 120:171-179.
- 8.5 **Pereira P A A** & Bliss F A 1989 Selection of common bean (*Phaseolus vulgaris* L.) for N₂ fixation at different levels of available phosphorus under field and environmentally-controlled conditions. Plant and Soil 115:75-82.
- 8.6. **Pereira P A A**, Miranda B D, Attewell J R, Kmiecik K & Bliss F A 1993. Selection for increased nodule number in common bean (*Phaseolus vulgaris* L.) Plant and Soil 148:203-209.
- 8.7. Gepts P Kmiecik K, **Pereira P A A** & Bliss F A 1988. Dissemination pathways of common bean (*Phaseolus vulgaris* Fabaceae) deduced from phaseolin electrophoretic variability. I. The Americas. Econ Bot 42:73-85.
- 8.8. Muller S. **Pereira P A A** & Martin P 1993. Effect of different levels of mineral nitrogen on nodulation and N₂ fixation of two cultivars of common bean (*Phaseolus vulgaris* L.). Pant and Soil 152:139-143.
- 8.9. Muller S H & **Pereira P A A** 1995. Nitrogen fixation of common bean (*Phaseolus vulgaris* L.) as affected by mineraç nitrogen supply at different growth stages. Plant and Soil 177:55-61.
- 8.10. **Pereira, P A A**, Bulow J.F.W. von & Neyra, C A 1978 Atividade da nitrogenase, nitrato reductase e acumulaçã de nitrogênio em milho Braquítico *Zea mays* L. (CV. Piranão) em dois níveis de adubaçã nitrogenada. R. bras. Ci. Solo 2:20-33.
- 8.11. **Pereira P A A**, Rocha R E M da, Araújo R S & Steinmetz S 1984. Capacidade de Genótipos de feijoeiro de fixar N₂ atmosférico. Pesq Agropec. Bras. 19(7):811-815.
- 8.12. **Pereira P A A**, Rocha R E M da & Araújo R S 1984. Nodulaçã do feijoeiro em monocultivo e associado com fileiras maduras de milho maduro. Pesq. Agropec. Bras.19(8): 951-954.
- 8.13. **Pereira P A A** 1990. Evidências de domesticaçã e disseminaçã do feijoeiro comum e conseqüências para o melhoramento genético da espécie. Pesq Agropec. Bras. 25 (1):19-23.
- 8.14. **Pereira P A A** & Souza C R B 1992. Tipos de faseolina em raças crioulas de feijão no Brasil. Pesq Agropec bras 27(8): 1219-1221.
- 8.15. **Pereira P A A**, Yokoyama M, Quintela E D & Bliss F A 1995. Controle do caruncho *Zabrotes subfasciatus* (Bohemann, 1833) (Coleoptera-Bruchidae) pelo uso de proteína da semente em linhagens quase isogênicas do feijoeiro. Pesq. Agropec. Bras. 30(8):1031-1034.
- 8.16. Andriolo J, **Pereira P A A** & Henson R 1994 Variabilidade entre linhas de formas silvestres de *Phaseolus vulgaris* quanto a características

relacionadas com a fixação biológica de N₂. Pesq Agropec 29(6)9:831-837.

- 8.17. Barbosa R. F., Yokoyama M. **Pereira P. A** e Zimmermann F. J. P. 2000. Danos de *Zabrotes subfasciatus* (Boh.) (Coleoptera: Bruchidae) em linhagens de feijoeiro (*Phaseolus vulgaris* L.) contendo arcelina. Na Soc. Entomol. Brasil 29(1) 113-121.
- 8.18. Freyre R., Shrock P.W., Geffroy V. Adam-Blondon ^aF., Shirmohamadali ^a, Johnson W.C., Llaca V., Nodari R.O, **Pereira P.A.**, Tsai S.M., Thome J., Dron M., Nienhuis J., Vallejos C.E., Gepts P. 1998. Towards an integrated linkage map of common bean. 4. Development of a core linkage map and alignment of RFLP maps. Theor Appl. Genet.) 7:847-856.
- 8.19. **Pereira P A.A**, Oliver A., Bliss F. A. Crowe L., and Crowe J. 2002 Preservation of rhizobia by lyophilization with trehalose. Pesq. Agropec. bras. 37:831-839.
- 8.20. Graham P.H., Rosas J.C., Estevez de Jensen c., Peralta E., Tlustý B., Acosta-Gallegos J., and **Pereira P.A.A**. 2003 Addressing edaphic constraints to bean production: the Bean/Cowpea CRSP Project in perspective. Field crops research 82: 179-192.
- 8.21. Araujo L. G., Prabhu A. S., **Pereira P.A.A**. 2004 RAPD marker linked to a gene conferring resistance to race IB-9 of *Pyricularia grisea* in a somaclone of rice cultivar Araguaia. Plant Cell Tiss. Org. Cult. 67:165-175.

9. CHAPTER IN BOOKS

- 9.1. **Pereira P A A** Dobereiner J 1979 A note on nitrogenase and nitrate reductase activities, and denitrification in five *Brachiaria* Spp genotypes. Em N₂ Fixation Volume II Vose P B & Ruschel A P (ed) CRD Press pg.50.
- 9.2. Baldani J I, **Pereira P A A**, Neyra C A & Dobereiner J. 1979 Contribution to the methodology of excised root assays to evaluate nitrogenase activity in gramineae. Em N₂ Fixation Volume II Vose P B & Ruschel A P (ed) CRD Press pg. 51-59.
- 9.3. Hardarson G, Bliss F A, Cigales-Rivero M R, Henson R A, Kipe-Nolt, J, Langeri L, Manrique A, PeñaCabriales J J, **Pereira P A A**, Tsai S M & Sanabria C A 1993. Genotypic variation in biological nitrogen fixation by common bean. F A Bliss and Hardarson G (ed) in Enhancement of Biological Nitrogen Fixation of Common Bean in Latin America. Kluwer Academic Publishers pg. 59-70.
- 9.4. **Pereira P A A** 1994 Técnicas de melhoramento da planta hospedeira para incrementar a fixação de nitrogênio: O caso do feijoeiro. Em Manual de métodos empregados em estudos de microbiologia agrícola. EMBRAPA/SPI Brasília pg.327-335.
- 9.5. Zimmerman M J O, Carneiro J E S, Peloso M J Del, Costa J G C, Rava C A, Sartorato A & **Pereira P A A** 1996. Melhoramento genético e cultivares. Em Cultura do feijoeiro comum no Brasil. Piracicaba :POTAFOS, 1996 pg 223-272.
- 9.6. Baldani, J I, **Pereira, P A A** & Neyra C A 1979. Contribution to the methodology of excised root assays for evaluation of nitrogenase activities in grass roots. Associative N₂- fixation, Volume II CRC press pg 52-58..

- 9.7. Freitas, J L M, **Pereira P A A** & Dobereiner J 1979. Effect of organic matter and Azospirillum strain on N metabolism in *Sorghum vulgare*. Associative N₂- Fixation Volume II CRC press Pg.156-163.
- 9.8. **Pereira PAA** 1999. A cultura do feijão no Brasil: Situação Atual e Perspectivas. Feijão Irrigado Estratégias Básicas de Manejo. Piracicaba, ESALQ pg. 1-9.
- 9.9. Peloso M A Del, Yokoyama L P & **Pereira P A A** 1997. Situação atual da cultura do feijão no Brasil. em Francelli A L e Dourado-Neto D. Tecnologia da
- 9.10. Aidar H, Yokoyama M, Silveira P M, Kluthcouski J, Siva C C, Pereira P A A, Lopes M , Filho W B 1992 Avanços da pesquisa com feijão (*Phaseolus vulgaris* L.) em varzeas no projeto formoso. EMBRAPA serie documentos 20pg.
- 9.11. Henson R A, **Pereira P A A**, Carneiro J E S & Bliss F A Registration of "Ouro negro" a high dinitrogen- fixing high yielding common bean. Crop Sci. 33:644.
- 9.12. Bliss F A **Pereira P A A**, Araujo R S, Henson R A Kmiecik K, McFerson J R, Teixeira M G & Silva C C da 1989. Registration of five high nitrogen fixing lines of common bean germplasm lines. Crop Sci 29:240-241.
- 9.13 Bondani R V P, Brondani C. Melo L C, **Pereira P A A** 2005 Marcadores Moleculares em Programas de Melhoramento Genético do feijoeiro Comum. Pg 85-107. Em Potencial de Rendimento da Cultura do Feijoeiro Comum. Editores Maria Jose Del Peloso, Leonardo Cunha Melo. Embrapa Arroz e Feijão .
- 9.14 Vieira L F e **Pereira P A A** 2005 Embrapa Labex: avançando com os donos do conhecimento. Rev. Política Agrícola. Pg 52- 62.

10. CULTIVARS RELEASES AS THE BREEDER RESPONSIBLE

Safira, Aporé, Ouro Negro, Pérola

12. PATENT PROCESS

1-Methodology to introduce protector molecule (Trehalose) in bacterial cells.

Co-author

Patent: Disclosure and record of invention form

Institution: University of California –Davis

California USA.