

William Ronnie Coffman

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Born 1943, Kentucky, USA; Married 1966 to Charlotte Westerman
Children: Justin (Born 1980) and Caroline (Born 1984)

Education

Ph.D., 1971, Cornell University, Plant Breeding
M.S., 1967, University of Kentucky, Agronomy
B.S., 1965, University of Kentucky, Agronomy

Experience

2001-present, Director, International Programs and Chair, Department of Plant Breeding, College of Agriculture & Life Sciences, Cornell University, Ithaca, NY. The Director of International Programs facilitates the involvement of CALS faculty and students in international activities in support of teaching, research and extension. The Chair of Cornell Plant Breeding supports a premier department in discovery and development related to plant breeding.

1993-2001, Associate Dean for Research, College of Agriculture and Life Sciences and Director, Cornell University Agricultural Experiment Station, Cornell University, Ithaca, NY. The Associate Dean for Research works closely with the Dean in coordinating, facilitating, and administering the research programs of the College of Agriculture and Life Sciences (CALS), and the Cornell Agricultural Experiment Station (CUAES). The Experiment Station funds programs in all units of the University, principally the Colleges of Agriculture and Life Sciences, Human Ecology, and Veterinary Medicine; the Divisions of Biological Sciences and Nutritional Sciences; and other University units, and relates closely to the New York State Agricultural Experiment Station at Geneva. Responsibilities cover basic and applied research in the plant and animal sciences; biochemical, food and environmental sciences; and the social and behavioral sciences.

Implemented a service philosophy in the Office for Research and the establishment of a new position to support faculty in program and proposal development resulting in a significant increase in funding of sponsored programs. Developed and implemented a new policy for the use of federal formula funds, eliminating "entitlements" and redirecting a portion of these funds to support new program thrusts. Supported the Dean in developing a strategic plan for the college, providing leadership for components related to research and/or electronic technology. Facilitated the integration of research and extension administration in the college. With Cornell Cooperative Extension Administration and Professor Dan Decker, established the Statewide Program Committee Extension/Research Grants Program. As Chair of the Advisory Group on Electronic Technology (AGET), helped develop and implement a plan for the Dean in support of electronic technology in the college. As Chair of the university Faculty Advisory Board for

Information Technology (FABIT) helped initiate a planning effort for electronic technology in the university resulting in a major internal grants program to advance the use of these technologies. With Associate Dean Bidy Martin of the College of Arts & Sciences provided leadership in restructuring the biological sciences at Cornell. With Dr. K. V. Raman established the Cornell Eastern Europe Mexico (CEEM) potato late blight program. With Dr. Steve Tanksley, Dr. Susan McCouch, and others, provided leadership in establishing the Cornell Genomics Initiative and the Institute for Genomic Diversity. In collaboration with key students and faculty, helped establish the college's organic farm at Dilmun Hill. In concert with the Faculty Committee on Program Review, coordinated the review (still ongoing) of most of the academic units in the college.

1987-1993, Chair, Department of Plant Breeding and Biometry, Cornell University, Ithaca, NY. Provided leadership to encourage the use of emerging technologies in Cornell Plant Breeding's historically strong breeding programs. Strengthened linkages with research, teaching, and extension institutions in the developing world. Attracted to Cornell the international headquarters of the International Service for the Acquisition of Agri-Biotech Applications (ISAAA). Enhanced the space and facilities of the department. Co-chaired the strategic planning task force on international dimensions of the college.

1981-Present, Professor of Plant Breeding, College of Agriculture & Life Sciences, Cornell University, Ithaca, NY. Helped expand and enhance the international research, teaching and extension activities of the college and the Department of Plant Breeding and Biometry. Supervised 15 graduate students and worked in collaboration with colleagues on a wide range of problems in crop improvement and applied plant genetics. In collaboration with several faculty members in the department, secured funding and established teams to develop and utilize genomic maps in major crop plants including rice, wheat, barley, oats, and potato. Worked as a member of a team to develop and utilize a molecular map of rice chromosomes. Collaborated with scientists at the International Rice Research Institute in the evaluation of genetic diversity in rice. Worked as a member of a wheat improvement team that demonstrated the effectiveness of recurrent selection in the improvement of disease resistance. Served as Graduate Faculty Representative, Field of Plant Breeding (1985-87). Developed and taught for 3 years PB 201, Introduction to Plant Breeding; Taught for 5 years PB 603, Methods of Plant Breeding.

1981-1993, Professor of International Agriculture, College of Agriculture & Life Sciences, Cornell University, Ithaca, NY. Contributed to the international research and training activities of the college. Helped establish and served as a member of the Program Committee of the Cornell International Institute for Food, Agriculture, and Development (CIIFAD). Provided leadership within CIIFAD for major multidisciplinary efforts including the Sustainable Farming Systems Group, and the Biotechnology Policy Group. For 6 years served as the leader of an interdisciplinary faculty team teaching IA 602, Agriculture in the Developing Nations in Costa Rica and Honduras. Lecturer, IA 402, Agriculture in Tropical America. Lecturer, IA 300, Perspectives in International Agriculture and Rural Development. Lecturer, ALS 469, Agriculture, Society and the Environment.

1971-1980, Plant Breeder, International Rice Research Institute, Los Baños, Philippines and Adjunct Professor, University of the Philippines at Los Baños (UPLB). Helped establish and worked as a member of an interdisciplinary rice improvement team, the Genetic

Evaluation and Utilization (GEU) Program, that produced germplasm cultivated on several million hectares throughout the rice growing world. Served as Chair of the GEU Coordinating Committee (1974-1980), and reorganized/systematized IRRI's plant breeding operations to facilitate and respond to the contributions of scientists from several relevant disciplines (agronomists, anthropologists, cereal chemists, communication specialists, economists, entomologists, geneticists, plant breeders, plant pathologists, plant physiologists, and soil chemists). Supervised 10 graduate students affiliated with Cornell University, University of the Philippines at Los Baños, Pennsylvania State University, University of California, Davis, and Oregon State University. Established (1975) and supervised (1975-1980) the Genetic Evaluation and Utilization (GEU) Training Program at IRRI which, over the years, trained hundreds of young scientists in the skills of rice improvement. Provided leadership in establishing a network for the international testing of rice. This evolved into the International Rice Testing Program (IRTP) and the International Network for the Genetic Evaluation of Rice (INGER) which extended improved rice germplasm throughout the world. Refined and popularized techniques for the vacuum emasculation of rice which were adopted by many of the world's rice improvement programs.

1978-1979, Visiting Scientist, Department of Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, Louisiana, USA. Established a composite breeding population for resistance to sheath blight, a major disease of rice in the southern U. S. and tropical countries. Developed a portable vacuum emasculator for rice.

1970-1971, Visiting Scientist (Graduate Student), Wheat Program, CIMMYT, Mexico, D.F., Mexico. Developed from spring/winter crosses improved wheat germplasm that has been used throughout the wheat growing world.

1967-1971, Research Assistant, Department of Plant Breeding and Biometry, Cornell University, Ithaca, NY. Developed extremely early maturing wheat germplasm from crosses between NY winters and Mexican springs. Later selected and distributed by Professor Neal Jensen as COFFEE (Coffman Extra Early).

1966-1967, Graduate Research Assistant, Department of Agronomy, University of Kentucky, Lexington. Assisted Professor Verne C. Finkner with the development of Barsoy barley, the first barley variety for double cropping with soybeans.

1962-1966, Undergraduate Student Assistant, Department of Agronomy, University of Kentucky, Lexington.

Prior to 1962, Farming, Hopkins County, Kentucky.

Germplasm Developed

Rice. Contributed to more than 30 named varieties (list available) grown on several million hectares throughout the world. Contributed to thousands of improved breeding lines distributed throughout the world for breeding purposes. **Wheat.** Contributed to several breeding lines distributed throughout the world. **Barley.** Contributed to one named variety.

Publications Summary

Books-2; Book Chapters-9; Others-80 (list available)

Selected Publications

Coffman, W.R., W.H. Lesser and S.R. McCouch, 2003 (in press). **Commercialization and the scientific research process.** *In* Ehrenberg, R.G. (ed.) Science and the University.

Coffman, W.R., J.E. Alexander, D.J. BenDaniel, P.L. Carey, H.G. Craighead, C.R. Fay, P.A. Gould, J.S. Gross, J.E. Hunter, W.H. Lesser, S. Loker, J.N. MacLeod, J.J. Mingle, N.R. Scott, and A.F. Krattiger, 2003. **The future of technology transfer at a major land grant university: Report of the Cornell University Land Grant Panel on Technology Transfer.** *IP Strategy Today* 6: 1-41.

Coffman, W.R., 1998. **The Future of Public Plant Breeding.** *In* Proc. 53rd Ann. Corn & Sorghum Res Conf, 1998. American Seed Trade Association, Washington, DC.

Mackill, D. J., D. Garrity, and W. R. Coffman, 1997. **Rainfed Lowland Rice.** IRRI, Los Baños, Philippines.

Coffman, W. R. and D. M. Bates, 1993. **History of crop improvement in sustainable agriculture.** *In* M. B. Callaway and C. A. Francis, ed., Crop Improvement for Sustainable Agricultural Systems. University of Nebraska Press.

Lesser, W. H. and W. R. Coffman, 1992. **Agrobiotechnology in Indonesia: Property Rights, Regulations, and Science.** Applied Agr. Res. Proj. Phase II, Winrock International Institute for International Development, Bogor, Indonesia.

Hargrove, T. R., V. L. Cabanilla, and W. R. Coffman. 1988. **Twenty years of rice breeding.** The role of semidwarf varieties in rice breeding for Asian farmers and the effects on cytoplasmic diversity. *Bioscience* 38(10): 675-681.

McCouch, S. R., G. Kochert, Z. Yu, Z. Wang, G. S. Khush, W. R. Coffman, and S. D. Tanksley, 1988. **Molecular mapping of rice chromosomes.** *Theor. Appl. Gen.* 76:815-829.

Coffman, W. R. and B. O. Juliano, 1987. **Rice. In Nutritional quality of cereal grains: genetic and agronomic improvement.** Amer. Soc. Agron., Madison, WI, USA.

Hautea, R. A., W. R. Coffman, M. E. Sorrells, and G. C. Bergstrom, 1987. **Inheritance of partial resistance to powdery mildew in spring wheat.** *Theoretical and Applied Genetics*: 73:609-615.

Villareal, R. L., R. R. Nelson, D. R. MacKenzie and W. R. Coffman, 1981. **Some components of slow-blasting resistance in rice.** *Phytopathology* 71: 608-611.

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Coffman, W. R. and R. M. Herrera, 1980. **Rice. In Hybridization of Crop Plants.** Amer. Soc. Agronomy, Madison, WI, USA.

Hargrove, T. R., W. R. Coffman and V. L. Cabanilla, 1980. **Ancestry of improved cultivars of Asian rice.** Crop Sci. 20: 721-727.

Jennings, P. R., W. R. Coffman, and H. E. Kauffman, 1979. **Rice Improvement.** IRRI, Los Baños, Philippines (published in English, Chinese, Korean, Spanish, and Vietnamese).

Coffman, W. R., G. S. Khush and H. E. Kauffman, 1978. **Genetic Evaluation and Utilization Program of IRRI.** In Rice in Africa. Academic Press, London.

Evenson, R. E., J. C. O'Toole, R. W. Herdt, W. R. Coffman, and H. E. Kauffman, 1978. **Risk and uncertainty as factors in crop improvement research.** In Risk, Uncertainty and Agricultural development (J. A. Roumasset, J. M. Boussard and I. Singh, Ed.), SEARCA-ADC, Los Baños, Philippines.

Herrera, R. M. and W. R. Coffman, 1974. **Emasculation of rice by vacuum extraction.** In Proc. Fifth Scientific Meeting, Crop Sci. Soc. Philippines, Naga City p.12-14.

Graduate Students Supervised

Supervised 28 graduate students from 13 countries

Boards and Committees

Scientific Advisory Committee for Genetically Improved Food Crops, The Rockefeller Foundation

Board of Trustees, American University of Beirut

Board of Trustees, International Service for the Acquisition of Agri-Biotech Applications (ISAAA)

Board of Trustees, Yassar University, Izmir, Turkey.

Land Grant Committee on Technology Transfer (Chair), Cornell University

Financial Policies Committee (Chair), Cornell University

Communications Work Group for Clearinghouse and Technology Pooling Approaches for IP Sharing for Public-sector Agricultural Research and Development. The Rockefeller Foundation and the McKnight Foundation.

Steering Committee, Future Harvest Consortium to rebuild agriculture in Afghanistan

Board of Trustees, Boyce Thompson Institute for Plant Research, 2000-2001

Board of Trustees, Winrock International, 1990-1999.

Board of Trustees (Chair of the Program Committee), International Center for Agricultural Research in the Dry Areas (ICARDA), 1994-1999.

Board of Directors (Co-chair) of the Northeast Center for Rural Development, 1995-1998

Northeast Regional Association of Agricultural Experiment Stations, (Chair), 2000-2001

Northeast Regional Association of Agricultural Experiment Stations Regional Research Committee, (Chair), 1995-98.

Task Force for the Structural Review of the Division of Biological Sciences (Co-Chair), Cornell University, 1997-98

Faculty Advisory Board for Information Technologies (Chair), Cornell University. 1994-97

Commission on International Trade, Development and Cooperation, Member of the Working Group on International Agricultural research, 1996-97.

The GREAN Initiative, Co-Chair with Dr. Uma Lele, 1993-97

Cornell University Board on Information Technology, 1994-97

Dean's Representative to the Board of Directors of the Agriculture and Life Sciences Alumni Association, Cornell University, 1993-96.

Program Committee, Cornell International Institute for Food, Agriculture, and Development, 1991-95.

Board of Scientific and Policy Advisors, American Council of Science and Health.

Governing Board, Center for the Environment, Cornell University, 1993-2001.

Research Oversight Committee, Boyce Thompson Institute, 1993-2001.

Advisory Group on Electronic Technology (Chair), College of Agriculture & Life Sciences, Cornell University. 1993-1995

Task Force on Research Innovations for Productivity and Sustainability (Co-chair), University of Florida and Cornell University.

Faculty Coordinating Committee, Conservation Farming in the Tropical Uplands (CIIFAD).

Administrative Advisor, Northeast Regional Research Project (NE-124): Genetics and Physiology of Sweet Corn Quality, Pest Resistance and Yield.

Administrative Advisor, Northeast Regional Research Project (NE-144): Forage Crop Genetics and Breeding to Improve Yield and Quality

Administrative Advisor, Northeast Regional Research Project (NE-174): Integrated Pest Management on Forage Crops in the Northeast.

Administrative Advisor, Northeast Regional Research Project (NE-169): Integrated Turf Management for Environmental Enhancement and Resource Conservation, 1993-1998.

Administrative Advisor, Northeast Regional Research Project (NE-185): Commodities, Consumers, and Communities: Local Food Systems in a Globalizing Environment.

Strategic Planning Task Force for International Programs (Co-chair). College of Agriculture & Life Sciences, 1992-93.

Board of Trustees (Chair of Research Program Committee), West Africa Rice Development Association (WARDA) 1987-1989.

CALS/Africa Committee (Chair), College of Agriculture & Life Sciences, 1988-1990.

Faculty Coordinating Committee, Farming Systems Development Project, Philippines, 1984-87.

Committee on Research Grants, Board on Science and Technology for International Development (BOSTID), National Research Council, 1984-87.

Panel on Int Agr Res Centers, Joint Council on Agr. Res. and Development, USAID, 1984-85.

Research Panel on Cooperative Research Support Projects and Int Agr Res Centers, Joint Council on Agricultural Research and Development, US Agency for International Development, 1985-87.

Committee on Organization, Policy, and Bylaws, Crop Science Society of America 1988 - present.

Faculty Council of Representatives, Cornell University. 1985-87.

Policy Committee (Chair), College of Agriculture and Life Sciences, Cornell University 1985-86.

Program Chair, American Seed Trade Association, 1992.

Organizations/Affiliations

American Society of Agronomy; Crop Science Society of America; Crop Science Society of the Philippines; American Association for the Advancement of Science; Association for International Agriculture and Rural Development; Council for Agricultural Science & Technology; FarmHouse Fraternity (president and vice president of Kentucky chapter).

Awards and Honors

Alpha Zeta (chancellor of Kentucky chapter); Phi Epsilon Phi; Phi Sigma Phi, Sigma Xi; Certificate of Recognition, International Rice Research Institute; Certificate of Recognition, West Africa Rice Development Association; Fellow of the American Society of Agronomy.

International Experience

- Resident** Philippines (9 years) and Mexico (2 years)
- > 3 months** Bangladesh, Costa Rica, Egypt, India, Indonesia, Ivory Coast, Malawi, Pakistan, Syria, Thailand.
- 1-3 months** Colombia, Honduras, Kenya, Korea, Lebanon, Nepal, Nigeria, Peoples Republic of China, Peru, Senegal, Sierra Leone, Sri Lanka, Uganda, Vietnam.
- < 1 month** Bahamas, Belgium, Bhutan, Botswana, Brazil, Burma, Cameroon, Canada, Cuba, Dominican Republic, Ethiopia, France, Germany, Greece, Guatemala, Hongkong, Iran, Italy, Japan, Jordan, Liberia, Malaysia, Mali, Martinique (Fr.), Netherlands, Niger, Morocco, Panama, Poland, Portugal, Russia, Singapore, Spain, Sudan, Switzerland, Turkey, United Kingdom, Yugoslavia, Zimbabwe.

Grants & Contracts

Agricultural Biotechnology Support Project (ABSP) II (Co-Director). U.S. Agency for International Development, 2002-2007. \$15M plus Mission matching of up to \$15M.

Consulting (Last 5 Years)

CIMMYT/ICARDA. Mediator for wheat research collaborative agreement for Central and West Asia and North Africa (CWANA), 2002.

The McKnight Foundation. Site Reviewer for proposals submitted to the Collaborative Crops Research Program, 2001.

Technical Advisory Committee, Consultative Group on International Agricultural Research, Leader of the External Program and Management Review for the International Center for Tropical Agriculture (CIAT), 2000.

The McKnight Foundation. Leader, Review of the Collaborative Crops Research Program, 1999.

Technical Advisory Committee, Consultative Group on International Agricultural Research,
Consultant to the External Program and Management Review for the International Rice
Research Institute, 1998.

International Crops Research Institute for the Semi-Arid Tropics (ICRISAT), Consultant on
implementation of the recommendations of the External Program and Management Review,
1997-99.

Technical Advisory Committee, Consultative Group on International Agricultural Research,
Leader of the External Program and Management Review for the International Crops Research
Institute for the Semi-Arid Tropics (ICRISAT), 1996-97.