

# 1890 System Leadership Profile

NAME:

**Carolyn Branch Brooks**

**PRESENT TITLE (2007 – present):** Executive Director, Association of 1890 Research Directors

## I. EDUCATION:

B.S. – Biology – Tuskegee University

M.S. – Biology – Tuskegee University

Ph.D. – Microbiology - The Ohio State University

Continued education in molecular biology: Indiana University, University of Minnesota, University of Maryland (Center of Agricultural Biotechnology of MBI), and University of Wisconsin (La Cross campus)

## II. PRIOR EXPERIENCE IN HIGHER EDUCATION:

At the University of Maryland Eastern Shore

**August, 1995 - 2007** Professor and Dean, School of Agricultural and Natural Sciences and 1890 Research Director

**July 1, 1997 – Sept., 2001** Executive Assistant to the President and Chief of Staff

**July 1, 1992 - August, 1995** Interim Chair, Department of Agriculture

**January, 1992 - June, 1992** Coordinator of the Plant and Soil Science Program; Co-director of the Center of Plant and Microbial Biotechnology

**January, 1989 - December, 1989** Director of SEPUMS (Scientific Enrichment Program for Undergraduate Minority Students)

**February, 1981 – January, 2006** Principal Investigator on USDA, NSF and USAID funded Research Projects.

Courses taught at UMES: Microbial Ecology, Cell Biology, Avian and Mammalian Health and Diseases (team taught), Overview of the Agricultural Sciences, Recombinant DNA Technology, Agricultural Microbiology, and member of team teaching Introduction to Plant Science

### Other Experiences in Higher Education:

**February, 1980 - February, 1981** Principal Investigator and Acting Program Director of CSRS Nutrition Program for the Elderly, Kentucky State University, Frankfort, Kentucky. **September, 1977 - February, 1980** Principal Investigator KSUCRS Program, Kentucky State University, Frankfort, KY

## III. System-wide-related Activities:

- **Member-At-Large on the LEAD21 Board of Directors, 2010-2014.** Chair of the Board, 2013 – 2014, Program Chair, 2012 – 2013.

- **Member of the Executive Committee of NAUFRP** (National Association of University Forest Resource Programs) to represent the 1890s, 2012 – present.
- **Member of NARDeP Advisory Board** (National Agricultural and Rural Development Policy Center), 2011 – present.
- **Member of the Advisory Board for the Development of Virtual Archives of Land-Grant Universities**, 2012 – present.
- **Member of the External Review Committee for the CSREES Education Portfolio** November, 2008. (Ag in the Classroom, Challenge Grants, 1890 and 1994 programs, HIS programs, programs for insular areas, Multicultural Scholars, National Needs Graduate Fellowships).
- **Member of the American Association for the Advancement of Science (AAAS) taskforce** to study the “Underrepresentation of Women in Agricultural Sciences. 2006 - 2008. The study was co-sponsored by the American Phytopathological Society, the American Society of Agronomy, Crop Science Society of America, and Soil Science Society of America.
- **Intermittently a Member of the Executive Team of the 1890 University/USDA Task Force.**
- **USDA/CSREES Program Review Team Member** for **Virginia State University’s** College of Agriculture and Natural Resources, March 26 – 30, 2007; the College of Agriculture and Life Sciences, **Virginia Polytechnic Institution and State University (VA Tech)**, November 8 – 12, 2004; the College of Agriculture and Human Sciences, **Prairie View A&M University**, November 1 – 3, 2004; for The Plant Science Dept., **South Dakota State University**, Sept., 1992; and the Dept. of Applied Microbiology and Plant Physiology, **Rutgers University**, June, 1992.
- **Member of the Accreditation Evaluation team of the Middle States Commission on Higher Education** for **The University of the Virgin Island**, 2007; **Alfred State College (New York)** 2005; **State University of New York (SUNY) College of Agriculture and Technology at Morrisville**, 2001; **Delaware Valley College**, 1998; **University of SUNY, Cortland**, 1997; **University of Puerto Rico**, Mayaguez Campus, 1995. (Area of concentrated reviews related to agriculturally related programming.)
- **Representative of the 1890 Land Grant Institutions on the NASULGC CREATE 21 Task Force** (Creating Research, Extension, and Teaching Excellence for the 21<sup>st</sup> Century), 2005-2006.
- **Member of the American Society for Microbiology’s Committee on Microbiological Issues Impacting Minorities**, 2005-2008.
- **Member of the National Association of State Universities and Land Grant Colleges’ (NASULGC) Design Team and Implementation Team for the Food Systems Leadership Development Institute (FSLI)** for 1862, 1890 and 1994 Land-Grant Institutions, 2001 – 2004.

- **Member of the Committee on Opportunities in Agriculture, National Research Council of the National Academies of Sciences, 2000 – 2002.** Contributed to the chapters in the book entitled *Frontiers in Agricultural Research: Food, Health, Environment, and Communities*
- **Appointed Chair of the Budget and Legislative Committee of the 1890 Institutions' Council of Presidents and Chancellors, 2004 – 2006.**
- **National Science Foundation (NSF) Review Panelist for the IGERT Program, May, 2005.**
- **Elected by Land-Grant University Administrators to serve as the 1890 Representative on the Board on Agriculture Assembly 1<sup>st</sup> Policy Board of Directors, 2001 – 2003.** (Secretary, 2001 – 2002; Vice Chair, 2002 – 2003).
- **Chair, Association of 1890 Research Directors (ARD), 2000 – 2002; Chair of ARD's Planning Committee (involved in the development and implementation of the 2005 – 2010 strategic plan); Chair-elect, Association of Research Directors of 1890 Land –Grant Institutions, 1998-2000.**
- **Member of the External Evaluation Panel of the USAID Bean/Cowpea CRSP – 1998 – 2003.** (Reviewed research and education programs at Washington State University, Oregon State University, University of California – Davis, and Michigan State University.)
- **Ad Hoc Review Committee member for the USDA/CSREES/NASULGC 2000 Food and Agricultural Sciences Exhibition on Capitol Hill.**
- **Member of the 1999 Honors Awards Evaluation Committee of the U.S. Department of Agriculture.**
- **Member of USAID-USDA Team** to establish collaborative ties with Research Centers and Universities in South Africa, Feb. 17, 1998 – March 7, 1998.
- **Member of Evaluation Panel** to review and prioritize constraints identified by the International Ag. Research Centers (IARCs) for USAID funded IARC/Universities Competitive Grants Program, April, 1998.
- **Member of the Board of Directors** of the Northeast Regional Aquaculture Center, University of Massachusetts, Amherst, 1997 – 2003.
- **Member of the Minority Education Committee** of the Board of Education and Training, the American Society for Microbiology, 1996-99.
- **Proposal Review Panelist**, Fund for Rural America, USDA/CSREES, Washington, D.C., September, 1997.

- **Member of the Selection Committee** of the National Food and Agricultural Sciences **Excellence in College and University Teaching Awards** - Sponsored by NASULGC's Academic Programs Section, June, 1996, June, 1997, June, 2005.
- **Member of the Planning Committee** of the National Agricultural Sciences Education Conference - "Science Education in the Third Millenium: A Collaborative and Integrated Approach, 1996.
- **Representative** from the Association of 1890 Research Directors on NASULGC's Experiment Station Committee on Policy (ESCOP)and the Academic Committee On Policy (ACOP). 1996-97, 1999 – 2000, 2001 - 2002.
- **Secretary of the 1890 Council of Deans** of Agricultural Programs, 1996-98.
- **Participant in the ESCOP/ACOP Leadership Development Training Program, 1994, Indianapolis, IN and Washington, DC.**
- **Invited Participant** at the Regional **Vision Development Conference** for the Agriculture Research Service (ARS) of USDA, St. Louis, Missouri, June 28-29, 1996.
- **Planning Committee and Presenter** at the Third Annual Agribusiness Forum, Virginia State University, October 22-23, 1996.
- **Site Review Coordinator** of the National Research Council's **Committee on Undergraduate Science Education**, appointed Feb., 1995. The charge was finding and disseminating ways to improve scientific literacy for all undergraduate students through improvement of curricula and pedagogy and to develop innovative and effective ways of instruction.
- **Member of the NSF Comprehensive Review Team** for **Michigan State University's Center for Microbial Ecology**, August 30 - Sept. 2, 1994, East Lansing, Michigan.
- **USDA Ad-Hoc Review Panelist** for the **Biotechnology Risk Assessment** Research Grants Program, University of California - Davis, August, 1993 and April, 1994.
- **National Research Council Review Panelist** for the USAID Cooperative Programs with HBCUs, July, 1993, Washington, D.C.
- **USDA Peer Review Panelist** for the USDA National Needs Fellowship Program, March **1989**; May **1990**; April, **1991**; April, **1993**; and June, **1995, August, 1997, Washington, D.C.**
- **Member of the Proposal Review Team and Technical Advisory Committee Member** of the Northeast Regional Center for Rural Development., **1992 - 1994** Penn State University.
- **USAID Review Panelist** for the U.S. - Israel Cooperative Development Research (CDR) Program, Oct., 1993.

#### IV. Honors and Awards

- **Recipient of the George Washington Carver Public Service Hall of Fame Award** at the 71<sup>st</sup> Professional Agricultural Workers Conference (PAWC), Tuskegee, Alabama, December 10, 2013.
- **Recipient of the 2007 William A. Hinton Research Training Award** from the American Academy of Microbiology of the American Society for Microbiology, **Toronto, Canada, May 22, 2007.**
- **Honored as one of Maryland's Top 100 Women for 2007**, by *The Daily Record's* 12<sup>th</sup> Annual Top 100 List, in an award ceremony at the Meyerhoff Symphony Hall, Baltimore, MD, May 7, 2007. The award recognizes successful female professionals who also give back to their professions and communities by mentoring others and by personal community involvement.
- **Recipient of "2005 Spirit of Excellence Award" for community leadership** from Alpha Kappa Alpha Sorority, Delta Sigma Omega Chapter.
- **Biographical inclusion in the Eighth Edition of the International Directory of Distinguished Leadership**, 1998.
- **Featured as one of the 100 Distinguished African American Scientists** in *Distinguished African American Scientists of the 20th Century* by J.H. Kessler, J.S. Kidd, R.A. Kidd, K.A. Morin. Oryx Press, 1996. pp. 27-31.
- **Who's Who Among America's Teachers**, 1996. (Nominated by students)
- **Who's Who Among African Americans**, 9th edition, 1995.
- **Recipient of the UMES National Alumni Association's Faculty Award for Excellence and Achievement**, 1994.
- **Recipient of the Outstanding Educator Award** from the **Maryland Association for Higher Education** for "dedicated service and exemplary accomplishment in the category of Advisor/Mentor," 1990.
- **Recipient of Award from Students – "In Acknowledgement of Your Unparalleled Dedication and Devotion - We Herald Your Efforts,"** 1989.
- **Recipient of the First Annual White House Initiative for Historically Black Colleges and Universities - Faculty Award for "Excellence in Science and Technology,"** 1988.
- **"Woman of the Year Award"**, Maryland Eastern Shore Branch of the National Association of University Women (NAUW), 1988.
- **Recipient of the "Chancellor's Research Scholar Award"**, 1988.
- **Recipient of the School of Agricultural Sciences "Outstanding Faculty Award for Research"**, 1987-88.

- **First Place Award Recipient** for the competitive paper presentation at the Association of 1890 Research Directors' Seventh Biennial Research Symposium in the area of Plant and Soil Sciences, Washington, D.C., 1987.

## V. INTERNATIONAL EXPERIENCE

External program reviewer for USAID - CRSP programs in **Costa Rica, Honduras, Puerto Rico, Dominican Republic, Tanzania, and Malawi**, November, 1999 and January, 2000.

- Co-Investigator on Egyptian grant – “Production of Canola and Sweet Lupin in the Newly Reclaimed lands of **Egypt**, March, 1999.
- Represented UMES in linkage meetings with **Egyptian Universities**, March 20 – 29, 1998.
- USAID-USDA team member to establish collaborative ties with Research Centers and Universities in **South Africa**, February – March, 1998.
- Tissue culture consultant for the "Root and Tuber Food Crops Research Program" in **Cameroon, West Africa**, February, 1988.
- Researcher in **Togo, Nigeria and Senegal, West Africa**. Work involved the evaluation of Nitrogen Fixing bacteria in bambara groundnut, June - August, 1984 and July - August 1985

### Examples of PRESENTATIONS for the System:

Presentations made as the Executive Director are too frequent to list, and are not listed, as I represent the 1890 universities at a number of initiatives for the Association of Public and Land Grant Universities (APLU) and therefore make regional and national presentations as part of the responsibilities of the position.

- **“The 1890s -Holding Steadfast to the Morrill Vision” – keynote luncheon speaker at the Mississippi State University Conference \_ “Thinking Land-Grants: A Celebration of the 150<sup>th</sup> Anniversary of the Morrill Land-Grant Act”, October 4, 2012 ( *Agricultural History*, the journal of the Agricultural History Society, the international organization for the study of the history of agriculture, rural life and the environment, will publish the speech as part of its remembrance of the 125th anniversary of the Second Morrill Act of 1890 as it includes information about the clear intent to extend Morrill Act benefits to African Americans.)**
- **Guest Speaker on the topic of “Funding for Agricultural Research and Development” for the Regional (VA, PA, DE, MD) Advisory Board of Farm Credit, Winchester, VA, August, 2011**
- **Guest Speaker at Extension’s annual Public Issues Leadership Development (PILD) Conference, Washington, DC, 2008**
- **Keynote Speaker for The Ohio State University MANNRS Banquet, – Columbus. Ohio, May 22, 2008**

- **Presentation to The Ohio State University Ag Faculty and Administrators** on 1890 Programs and Opportunities for Collaborations, Columbus, Ohio, May 21, 2008
- **“Women – Standing on Each Other’s Shoulders”**, keynote speaker at the USM Women’s Forum, **Building A Better Tomorrow Today**. November 13, 2008, Columbia, MD
- **Guest Speaker at the AAAS Annual Meeting in the Session entitled “The How and Why of Advancing Women in the Agricultural Sciences**, Boston, Massachusetts. Feb. 14-18, 2008
- **Keynote Speaker at the Epsilon Sigma Phi – The Cooperative Extension Professionals’ Organization National Conference for Professional Development** – with the topic **“The Land Grant Commitment to Higher Education.”** Loews Annapolis Hotel, Annapolis Maryland, November 17, 2006.
- **Guest Speaker at CSREES program “Minority Serving Institutions Against Obesity”** – August 29, 2006.
- **Invited Speaker /Panelist – The 1890 Institutions – Issues, Programs and Activities, Resources, and Facility Needs.** National Agricultural Research, Extension, Education, and Economics (NAREEE) Advisory Board, Washington, D.C., October 26, 2006.
- **Guest Speaker at the 150<sup>th</sup> Anniversary of the University of Maryland and its College of Agriculture and Natural Resources** with the topic of **“The Land Grant Mission: Relevant or Relic?”** October 26, 2005.
- **Invited Speaker – USDA Innovation Workshop - “Capacity Building – Strategies for networking and leveraging resources”** in Exploring MSI collaborations for programs related to preventing Obesity – Bismarck, North Dakota, August 30, 2005.
- **Invited Speaker – “Human Capital Development”** at the Association of Extension Administrators/Association of Research Directors’ Symposium, New Orleans, LA, June 19 – 22, 2005.
- **Keynote Speaker** at the Maryland Department of Natural Resources’ Black History Month Program, Annapolis, Maryland. February 20, 2003.
- **Keynote Speaker for ARS to commemorate Black History Month**, National Ag Library, Beltsville, MD, February, 2002.
- **Keynote Speaker - “Value of Base Funding: What would the future hold without it?”** State Agricultural Experiment Station Directors’ meeting. Coeur d’Alene, Idaho. Web address: [www.msstate.edu/archive/01workshop](http://www.msstate.edu/archive/01workshop). September 25, 2001.

- **Guest Speaker** for the annual Outstanding Black Scholar Lecture, sponsored by the Black Student Association and the Graduate Student Association at the University of Alabama Birmingham. April 13, 1998
- **Invited Speaker** at the State Agricultural Experiment Station Directors' Workshop (The Value of Formula Funds). Washington, D.C., May 1 - 3, 1996.
- **Presenter** at the Association of Research Directors' Workshop: Presentation was on UMES Programs and organizational goals and plans, Washington, D.C. September 22-24, 1996.
- **Keynote Speaker** for the ARS/SCC Research Apprenticeship Program at Kentucky State University, Frankfort, KY, August, 1995
- **Guest Speaker** at the ESCOP/ACOP Leadership Development Course (Class 4) sponsored by the Experiment Station Committee on Organization and Policy, the Academic Committee on Organization and Policy and the USDA Cooperative State Research Service, Indianapolis, IN, September, 1994.

## VI. PUBLICATIONS and PUBLISHED ABSTRACTS:

Nagchaudhuri, A., Mitra, M., **Brooks, C.**, Earl, T., Bland, G., and Ladd, G. 2006. Integration of Mechatronics, Geospatial Information Technology, and Remote Sensing in agriculture and environmental stewardship. Accepted for publication in The American Society of Mechanical Engineers conference publication: IMECE, Session DSC-2B Mechatronics II.

Nagchaudhuri, A., Mitra, M., **Brooks, C.B.**, Earl, T.J., Ladd, G., Bland G. 2006. Aerial imaging and remote sensing efforts at University of Maryland Eastern Shore," the *Proceedings of 2006 American Society for Engineering Education (ASEE) Annual Conference*, Chicago Illinois.

Nagchaudhuri, A., Mitra, M., **Brooks, C.**, Earl, T.J., Ladd, G., Conry, R. and Bland, G. 2005. "Initiating environmentally conscious precision agriculture at UMES," *ASEE Annual Conference*, Portland, Oregon.

Austin-Watson, Clytrice, Boyd, K., **Brooks, C.**, and Parveen, S. 2004. Inhibition of *Vibrio anguillarum* by the intestinal micro-flora of farm raised striped bass (*Morone saxatilis*) during the early stages of fish development. Annual meeting of the Institute of Food Technologists, Las Vegas, Nevada.

Mohamed, Ali, Hashem, F.M., Morant, M.A., Kandil, A.A., Hoballah, A.A., and **C.B. Brooks**. 2001. Effect of water stress, plant density and bradyrhizobia inoculation on the biochemical and nutritional components of lupine (*Lupinus albus* L.). *Proceedings of the 93<sup>rd</sup> Annual meeting of American Society of Agronomy, Crop Science Society of America and Soil Science Society of America*. Charlotte, N.C.

**Brooks, C.B.**, Hashem, F.M., Kandil, A.A. and M.A. Morant. 2000. Symbiotic competence of *Bradyrhizobium* on diverse lupine genotypes. *Proceedings of the 92<sup>nd</sup> Annual Meeting*,



American Society of Agronomy, Crop Science Society of America and Soil Science Society of America, Minneapolis, MN., *ASC 2000 Annual Meeting Book of Abstracts*.

Mohamed, A.I., F.M. Hashem, M.A. Morant, A. Kandil and **Brooks, C.B.** 2000. Screening lupine germplasm for nutritional quality. *ASC 2000 Annual Meeting Book of Abstracts*.

Gaskins, V., **C. Brooks**, and M. Morant. 1999. Impact of *Verticillium dahliae* on Eggplant Root Exudates and *Trichoderma* Populations in Poultry Compost Amended Soil. Proceedings of the 14<sup>th</sup> Annual National Society for Minorities in Agriculture, Natural Resources and Related Sciences, Roanoke, VA.

Gaskins, V.\*, **C. Brooks**, and M. Morant. 1999. Effect of poultry compost amendment on eggplant productivity and Trichoderma in Verticillium infested soil. 14<sup>th</sup> Annual Meeting of Minorities in Agriculture, Natural Resources and related Sciences. Roanoke, VA. (1<sup>st</sup> place winner – graduate student oral research presentation competition).

Mitchell, V.\* M. Morant, and **C. Brooks.** 1999. Use of Terminal Restriction Length Polymorphisms to Survey Microbial Community of Strawberry Grown in Soil Amended with *Verticillium*. 14<sup>th</sup> Annual National Society for Minorities in Agriculture, Natural Resources and Related Sciences, Roanoke, VA. (3<sup>rd</sup> place winner – graduate student oral research presentation competition).

Mitchell, V., **C. Brooks** and M. Morant. 1999. Effect of nutrient source on quality and yield of strawberry grown in *Verticillium* – infested soil. *HortScience* 34(3): 474.

Gaskins, V., D. Fravel, D. Roberts, J. Buyer, **C. Brooks**, and M. Morant. 1999. Effect of N source on root exudates and yield of eggplants grown in *Verticillium* infested soil. *Phytopathology Suppl.* 89 (6):26.

Gaskins, V., E. Phillip, K. Karanja, **C. Brooks**, and M. Morant. 1999. Impact of *Verticillium dahliae* on eggplant root exudates and *Trichoderma spp* populations in poultry compost amended soil. *Phytopathology Suppl.* 89 (6):99.

Morant, M.A., J.L. Casasola, **C.B. Brooks**, E.T. Philip, S.S. Wortham, and C.R. Orr. 1997. Poultry litter enhances soybean productivity in fields infested with soybean cyst nematode. *Journal of Sustainable Agriculture* 11:39-51.

Morant, M., **C. Brooks**, H. Ekperigin, and E. Phillip. 1997. Recovery of *Salmonella* and *E. coli* from soil amended with poultry litter. Page 59 In Proceedings, 11<sup>th</sup> Biennial Research Symposium, Association of Research Directors, San Antonio, Texas.

**Brooks, C.B.**, R.B. Dadson, B.M. Green. 1994. Symbiotic effectiveness of African *Bradyrhizobium spp.* with U.S. Soybean cultivars. *Tropical Agriculture* 71: 22 - 25.

Morant, M.A., and **C.B. Brooks.** 1994. Reaction of *Heterodera glycines* to application of poultry manure on the Delmarva Peninsula. *Phytopathology* 84:546.

Mollett, T.A. and **C. B. Brooks**. 1994. Composting as a method of on farm animal carcass disposal for limited resource farmers. Proceedings, 10th Biennial Research Symposium of the Association of Research Directors, New Orleans, LA.

Casasola, J., M. Morant, and **C. Brooks**. 1994. Interaction of poultry litter and soybean cyst nematode: influence on soybean production. Proceedings, 10th Biennial Research Symposium of the Association of Research Directors, New Orleans, LA.

Mollett, T. and **C.B. Brooks**. 1993. Evaluation of composting as a method of on farm dead animal disposal. Presented at the Annual meeting of the American Dairy Science Association and Northeast ADSA/ASAS Sectional Meeting. (Abstract). College Park, MD.

Dadson, R.B., **C.B. Brooks** and M. Morant. 1992. Factors affecting resistance of soybean to corn earworm. Proceedings of the Ninth Biennial Research Symposium. 1890 Research: An Investment for the 21st Century.

**Brooks, Carolyn B.** 1990. Who will feed us? In "Agriculture 2000: Preparing for our future and building on our past." Minorities in Agriculture, Natural Resources and Related Sciences. Fifth Annual Conference Proceedings. pp. 23-27.

Mollett, T.A., **C.B. Brooks**, and E.A. Leighton. 1989. Effect of total CMT score and milk quality of the dam upon calf weaning weight in beef cattle. *J. Anim. Sci.* 67 (Suppl. 1): 467.

Dadson, R. B. and **C. B. Brooks**. 1989. Responses of bambara groundnut (Voandzeia subterranea (L.) Thouars) to applied nitrogen in Southern Togo. *Tropical Agriculture* 66: 169-175.

Mollett, T. A., **C. B. Brooks** and E. A. Leighton. 1988. Milk quality, composition and isolation of microorganisms from the mammary gland of the dam associated with reduced calf weaning weight in beef cattle. *J. Animal Sci.* 66 (Suppl. 1 ): 448.

Dadson, R. B., **C. B. Brooks** and J G. Wutoh. 1988. Evaluation of selected rhizobial strains grown in association with bambara groundnut. *Tropical Agriculture* 65: 254-256.

**Brooks, C. B.**, B. M. Green and G. R. Frank. 1988. Susceptibility of *Heliothis zea* to Bacilli isolated from Epargyreus clarus. *Journal of Invertebrate Pathology* 52: 177-179.

**Brooks, C. B.**, R. B. Dadson and B. M. Green. 1988. Evaluation of symbiotic effectiveness of elite and wild strains of Bradyrhizobium on cultivars of *Voandzeia subterranea* (L) Thouars. *Tropical Agriculture*. 65: 61-63.

**Brooks, C.B.** 1987. Bioassays of Bacilli Isolated from Epargyreus clarus against *Heliothis zea* larvae: Proceedings, Seventh Biennial Research Symposium of Historically Black Land Grant Colleges and State Universities. Washington, D.C.

**Brooks, Carolyn B.** and B. M. Green. 1986. Redundant spore-coat structures in an entomopathogenic *Bacillus*. *Canadian Journal of Microbiology* 32: 614-616.

**Brooks, Carolyn B.** and Lillian P. Cummings. 1984. Zinc and copper levels in hair, fingernails and plasma of elderly persons based on selected health conditions. *Journal of Nutrition for the Elderly* 3: 27-38.

**Brooks, Carolyn B.** 1984. Susceptibility of Lepidopterous Pests to Five New Isolates of *Bacillus*. Proceedings, Fifth Biennial Research Symposium of Historically Black Land Grant Colleges and Universities. Dallas, Texas.

**Brooks, Carolyn B.** 1983. Tactics for management of soybean complexes: Potential of entomopathogens and commercial microbial insecticides for suppression of the silver-spotted skipper soybean pest. *Soybean Genetics Newsletter* 10: 51-52.

**Brooks, Carolyn B.** 1980. The Effects of Dietary Zinc, Copper or Magnesium on Hair and Tissue Mineral Concentrations of Rats. Proceedings, Third Biennial Research Symposium of Historically Black Land Grant Colleges and Universities. Atlanta, Georgia.

**Brooks, Carolyn B.** 1978. *Plasmodium berghei*: The Role of the Merozoite Capsule in Resistance to Phagocytosis. Presented and published in the Proceedings of the 58th Conference of Research Workers in Animal Diseases. Chicago, Illinois.

**Brooks, Carolyn B.** and J. P. Kreier. 1978. A study of the role of the surface coat in the *in vitro* attachment and phagocytosis of *Plasmodium berghei* by peritoneal macrophages. *Infection and Immunity* 20: 827-835.

Kreier, J. and **Carolyn B. Brooks.** 1977. The Role of Macrophage-Cytophilic and Opsonic Antibodies in the Elimination of Malarial Parasites in the Rat. Presented at and published in the Proceedings of the Conference of the American Society of Tropical Medicine and Hygiene. Denver, Colorado.

## VII. EXTERNALLY FUNDED GRANTS:

**As Research Director of the Agricultural Experiment Station, I provide administrative and fiscal oversight of multi-million dollar programs from formula and competitive funding related to land-grant programs annually.**

Establishing a Faculty Technology Development and Support Center to Enhance Instruction, \$199,924, USDA Capacity Building Grant (C. Brooks is the Program Director, A. Shaw is Co-Director)

Co-Director with Dean Eddie Boyd on the Louis Stokes Alliance for Minority Participation Program, funded by NSF 1999 - 2005, \$1.8 million. **Funded for Phase III, October, 2005 – 2008, \$850,000.**

Increasing yield potential of canola and sweet lupin through breeding and integrated crop management in desert areas. University Linkage Program. Giza, Egypt. USAID. 1997-1999. **\$170,000**. (Co-PI with Mervalin Morant).

New Integrated Technology for Increasing Productivity of Oil Seed Crops Under Newly Reclaimed Lands in Egypt. University Linkage Program. Cairo University, Giza, Egypt. 1997 - 1999. **\$100,000**. (Co-PI with Robert Dadson).

Institutional Director of the Kellogg funded Mid-Atlantic Consortium. 1996-1998. **\$24,000**.

Providing Incentives and Quality Programs to Attract Minorities to Careers in the Marine Sciences. Funded by NOAA. 1996 - 1998. **\$150,000**

Minority Feeder Graduate Program that Enhances HBCUs in Instruction and Research. USDA/CSREES. 1996-1999. (Co-PI with Mervalin Morant) **\$199,696**.

Graduate Research Enhancement in Biocontrol and Nutrient Management for a Safe Ecosystem. USDA/CSREES. 1996-1999. (Co-PI with Mervalin Morant). **\$260,876**

Providing Incentives and Quality Programs to Attract Talented Minorities to Agricultural Sciences. USDA. 1995-99. **\$80,000**

Recruiting and Developing Academically Talented Minorities for Agriculture Careers. USDA/CSREES. 1993-96. **\$222,708**

Establishment of a Center for Plant and Microbial Biotechnology. USDA. 1991-93. (Co-PI with Robert Dadson) **\$150,000**

Scientific Enrichment Program for Undergraduate Minority Students. U.S. Dept. of Education. 1989. **\$86,060**

Evaluation of Nitrogen Fixation Efficiency in Bambara Groundnut [*Voandzeia subterranea* (L) Thouars] Germplasm. USAID. 1984-86. (Co-PI with Robert Dadson). **\$160,000**

MAES Competitive Grants Program: Poultry Manure and Soybean Production: Influence on Nitrogen Fixation and Soilborne Microorganisms 1994-95; **\$22,000** (Co-PI with Mervalin Morant) and Poultry Manure and Soybean Production: Influence on Soybean Cyst Nematode and other Soilborne Microorganisms. 1993-94; **\$23,500** (Co-PI with Mervalin Morant)

**USDA/CSREES (Evans-AllenProjects):** Potential of Entomopathogens for Suppression of Lepidopterous Pests 1982 - 87

Soybean Responses to African Strains of Rhizobia, Acidity, Aluminum and Tissue Culture, 1988-92

Microbiological Study of Subclinical Mastitis in Beef Cows, 1988 - 91

Study of Genetics and Dinitrogen Fixation Capability of African Bradyrhizobia, 1991 - 96.