

# CALS 2004-2005 Research Awards

by Colin Kaltenbach

## 2004-2005 Research Faculty of the Year Award

*Rod Wing, Professor of Plant Sciences and the BIO5 Institute, Director of Arizona Genomics Institute*

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Rod Wing, who came to The University of Arizona in 2002, is an award-winning scientist recognized for his expertise and many accomplishments. He is one of the international team of scientists who recently deciphered the genetic code of the rice plant. In recognition of his role in this work, the U.S. Secretary of Agriculture awarded Wing the 2004 USDA Honor award, the most prestigious honor given by the USDA, which recognizes outstanding contributions to agriculture. He also developed and directs the Arizona Genomics Institute, which focuses on research, teaching, and service in agricultural genomics. As with the rice genome project, Rod and the Institute are currently prepared to play a major role in the project to create a sequence-ready map of the maize genome. There are over 40 scientists under his direction at the Institute, including undergraduate, graduate, and postdoctoral students. In addition, he has been awarded over \$31 million in federal grants for various aspects of his research programs since coming to the University of Arizona in 2002.

Wing has not only brought scholarly distinction and recognition to the college, he has also stimulated and enhanced the research efforts of many others through his efforts to obtain and improve cutting-edge technologies in the field of molecular biology.

## 2004-2005 Outstanding Staff in Research Award

*Catherine Wasmann, Research Specialist, Senior*

*Division of Plant Pathology, Department of Plant Sciences*

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Catherine Wasmann has been the laboratory manager in Professor Hans Van Etten's plant pathology lab for the past 16 years. Her responsibilities include ordering supplies, lab maintenance, grant writing and review, and undergraduate student hiring and supervision. Her attention to detail on the best use of research funds has been a hallmark of her management of CALS dollars as well as those generated from grants.

Wasmann is also a respected research scientist who has made significant intellectual contributions to the Van Etten lab and has established a solid reputation in the scientific community. As a senior researcher, she has sustained an active research project within the lab while assisting others with their research projects and with training of other lab members. She is always willing to transfer the knowledge accumulated in her many years of research experience in the field of plant pathology. She is a natural leader, mentor, and a person who always gives 110 percent.

In January 2005, Wasmann was elected to serve as vice chair of the University Radiation Safety Committee, responsible for administering the UA radiation safety program.

## 2004-2005 Outstanding Team Award

*Controlled Environment Agriculture Center (CEAC) Greenhouse Program*

*Gene Giacomelli, Christopher Choi, Joel Cuello, Priscilla Files, Roger Huber, Merle Jensen, Chieri Kubota, Mark Kroggel, Allan Matthias, Mary Olsen, Patricia Rorabaugh, Ursula Schuch and Peter Waller*

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Supported by the state of Arizona and alliances with agencies like NASA, the CEAC team has established a reputation as one of the most sophisticated centers for interdisciplinary education and research in the United States. The CEAC has pursued amazing research, education and outreach programs based on a vision to develop controlled environment agriculture as a sustainable agricultural option: economically, environmentally, and socially. This is an integrated science and engineering-based approach to establish the most favorable conditions for plant productivity while optimizing resources including water, energy, space, capital, and labor. Greenhouse food production usually includes hydroponics, and controlled environment agriculture provides year round continuous production, and crop yields that exceed field production by as much as ten-fold.

The CEAC research projects include the development of the South Pole Greenhouse and the design and construction of a research greenhouse facility for desert regions, high quality greenhouse crop analysis, greenhouse energy and mass balance analysis, technology development for greenhouse production systems and management, and controlled environment plant tissue culture.

Education and teaching projects include "a Day in the Life of a Plant," a learner-centered, web-based education CEA website and simulation models; hydroponics; physiology of plant production under controlled environment; greenhouse pest management; simulation of biological systems; and resident student internship experiences in operational monitoring of research and demonstration facilities.