



# SEEDS

The OARDC Research Enhancement Competitive Grants Program

Number 1-09

Ohio Agricultural Research and Development Center  
College of Food, Agricultural, and Environmental Sciences

## SEEDS: The OARDC Research Enhancement Competitive Grants Program

As new challenges present themselves in the twenty-first century, so begins an era where rapid advancements in bioscience provide unprecedented opportunities for economic and societal advancement. As Agbioscience continually tops the charts as Ohio's number one industry, The Ohio Agricultural Research and Development Center (OARDC) at The Ohio State University remains in the vanguard of cutting-edge research, establishing itself among the essential drivers of Ohio's economy.

The economic powerhouse of Ohio's Agbioscience industry is unparalleled within the state. No other economic engine comes close to making the kind of impact generated by agriculture, food, and the nursery and landscape industry. This massive industry yields more than \$90 billion annually, employs one in every six Ohioans, and supports a diversified and dynamic economic sector that touches the lives of every citizen in the state.

### ■ Ohio's No. 1 Industry

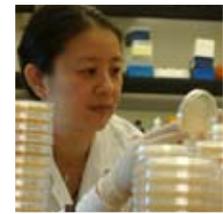
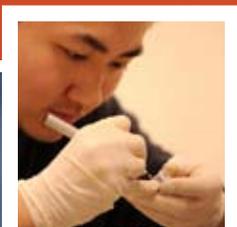
No other economic engine comes close to making the kind of impact — \$80 billion annually — generated by agriculture, food, and the nursery and landscape industry.

OARDC is the Research and Development (R&D) hub for Agbiosciences research in the state of Ohio and serves as the state's signature research center for realizing progress in all aspects of the bio-based economy. OARDC's Ohio spending impacts in FY2008 generated 1,609 jobs; \$156.3 million in economic output; \$59.2 million in personal income for Ohio residents, and \$5.5 million in state and local taxes. In a knowledge-driven economy intellectual property is perhaps the most valuable property that can be produced.

With the changing nature of the economic and societal trends — as well as the impact of globalization — agriculture, food, and the green industry also depend on innovators and researchers to generate new processes or products and increasingly link with other industries to take on common challenges and opportunities in key areas such as environmental restoration or the development of bio-renewable sources of energy, fuel, and industrial goods.

Addressing the differing challenges and vast opportunities of Ohio's largest industry is the ultimate goal of SEEDS, OARDC's Research Enhancement Competitive Grants Program. SEEDS promotes excellence in OARDC consistent with the mission and vision of OARDC and encouraging connections across disciplines, with industry and other stakeholders.

Established in 1996 and supported by an appropriation from the Ohio General Assembly to OARDC, SEEDS is unique among U.S. state-assisted universities because it enables faculty to conduct initial studies that will give them a competitive edge in grant programs external to the university and provide them with leverage to attract industry support.



## OBJECTIVES

SEEDS was created to encourage partnerships with industry and other stakeholders and to increase the competitiveness of OARDC/CFAES scientists in extramural grant programs. While these objectives remain the program's cornerstone, SEEDS has grown to include a total of seven objectives:

- Increase the competitiveness of scientists in extramural grant programs
- Encourage partnerships with industry and other stakeholders
- Encourage the development of interdisciplinary teams
- Encourage international collaborations
- Support the exploration of enterprises that are potentially new to Ohio
- Provide undergraduate students with research experience
- Provide graduate students with the opportunity to take part in the grant-writing/review process



## MEASURES OF SUCCESS

### Return on Investment

Overall, SEEDS has supported research projects at around \$9,600,000 in all categories and has received close to \$43,000,000 in matching and extramural funding — a return of about \$5.00 for each dollar invested.

Invested \$1,477,228 in projects requiring matching funds, generating \$3,735,985.75 in industry matches — a return of \$2.53 on each dollar invested.

### Global Research Network

Enabled scientists to establish collaborations with colleagues from Africa, Argentina, Australia, Belgium, Brazil, Chile, France, New Zealand, Norway, the Philippines, Switzerland, Taiwan, Uganda, and Zimbabwe.

### Creating Intellectual Property

Applications have been made for nine U.S. patents using results of initial findings. Three patent applications have been granted and three licensing agreements have been obtained.

### Sharing Knowledge

A total of 627 peer-reviewed scientific manuscripts, abstracts, popular press articles, bulletins, and/or book chapters have been published and over 1,100 presentations have been made throughout the world.

### Educating Tomorrow's Leaders

SEEDS-supported graduate students have produced 30 doctoral dissertations and 66 masters' theses.

## FOR MORE INFORMATION

If you would like more information on SEEDS: The OARDC Research Enhancement Competitive Grants Program, please visit our web site at: [www.oardc.ohio-state.edu/seeds](http://www.oardc.ohio-state.edu/seeds) or contact Lori Kaser at 330-202-3555, ext. 2638.



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