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# MOTIVATING Public Debate

Faculty Outreach Award recipient Charles Abdalla seeks solutions to environmental challenges through education and empowerment

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**W**hen colleagues describe Dr. Charles Abdalla, associate professor of agricultural and environmental economics in the College of Agricultural Sciences, the phrase “team oriented” comes up repeatedly. They say that he’s someone who does not seek the limelight or want to take credit for the work—instead allowing others to be visible. Indeed, after receiving the 2006 Faculty Outreach Award, Abdalla expressed some uneasiness with the extra attention. “I felt very honored just to be nominated,” he said. “The news about winning it came as a shock to me.”

Shock aside, it’s perhaps Abdalla’s commitment to doing outreach work that contributes to his unassuming nature. “For Charlie and many of our faculty in the College of Agricultural Sciences,” said Dr. Robert D. Steele, dean of the College of Agricultural Sciences, “outreach work comes as naturally as breathing.”



“Emerging environmental issues can’t be ignored,” said Dr. Charles Abdalla. “They might be front and center five years from now, or even sooner.”

Fred Weber—Campus Photography

For two decades, Charlie Abdalla has provided leadership on outreach work concerning environmental policy issues. He has increased the knowledge and skills of public and private decision-makers by holding workshops, giving conference presentations and being involved in a variety of work groups for public and private organizations. He has enabled rapid dissemination of policy developments via the Internet and print publications, helping audiences to understand their stakes in emerging issues. Many of his programs provide educational resources to Cooperative Extension educators throughout the state. These professionals, in turn, train and work with community leaders and citizens, thus multiplying the impact of his activities.

### **A Focus on Emerging Issues**

Abdalla further extends his outreach work by collaborating with other University units and by forming partnerships with civic organizations, public and private foundations, and local and federal government agencies. He has organized national and regional workshops on water quality policy, public policy education, and small-farm water quality issues, and he has been instrumental in planning conferences dealing with land-use issues.

The list is long; however, for Abdalla, the objective is simple. It all comes down to working with people and helping them to understand and address the “big picture” of environmental policymaking. “That picture is getting bigger,” said Abdalla. “Water, air quality and land use ... there is a complexity of issues. It’s part of what we struggle with, the environmental and health effects of these problems and their economic and social implications. Some people may not want to talk about these issues until the science is all there. But emerging environmental issues can’t be ignored, because they might be front and center five years from now, or even sooner.”

### **Understanding the Human Dimension**

Abdalla remembers a time when issues of environmental quality were ignored completely, when he was growing up in the early 1970s in northeastern Pennsylvania. “I saw firsthand

## Rural-Urban Interface

Population increases are occurring in Pennsylvania counties with significant agricultural production. For example, the following shows the total population increases between July 1, 2003, and July 1, 2004, in leading agricultural-production counties.

Lancaster	4,233	Franklin	2,047
Chester	7,738	Lebanon	1,432
Berks	4,964	York	6,019

Source: U.S. Census Bureau; Pennsylvania Agricultural Statistics, 2004–2005

problems such as acidic streams and air pollution from mines. The environmental issues were pervasive.” Juxtaposed to that was a family cottage in a pristine, rural area with fishing and other wildlife 15 miles away, which gave him a view of what seemed like “the other side of the world.”

Abdalla’s grandparents had a farm in northwest Iowa, expanding his appreciation for farming and where food came from. Agricultural issues, he says, “are a part of my family history, my roots.”

Then, as a Penn State undergraduate in environmental resource management, Abdalla became more interested in water quality issues. After graduating, he decided to go into the field of agricultural and environmental economics as he began to appreciate the fact that problems associated with water quality and other natural resources couldn’t be solved with technology alone. “There is a human dimension to all environmental issues,” he said. “If you really want to make a difference in terms of how environmental resources are managed, you need to understand people and how they tick.”

For example, Abdalla points out that pursuing some aspects of issues such as water quality may make people uneasy. While working with a task force addressing water quality permits from the largest animal farms—known as concentrated animal feeding operations—research uncovered that very few states address smaller farms. “Part of the problem is that people make assumptions—they may believe that small farms are always better environmental stewards. That may or may not be the case. Sometimes, no one likes to turn the rock over for fear of what they might find,” he said. “I was willing to turn the rock over. I’m advocating for understanding the issues better and making more informed management decisions.” That advocacy came

in the form of a workshop on water quality for small- to mid-sized farms, held in May last year. More than 60 people from 20 states participated.

That line of thought is also behind the current USDA-funded Mid-Atlantic Regional Water Quality Program—of which Abdalla is the leader for Penn State. He and other College of Agricultural Sciences colleagues are working with a network composed of land-grant universities in four other states—Maryland, Virginia, Delaware, West Virginia—and Washington, D.C., to encourage collaboration and policy innovation in solving issues related to water quality in the region. One initiative within this multistate program is the development and use of county and state nutrient budgets—indicators of environmental well-being.

## An Effort That Reaches Millions

In order to motivate debate on other ag-environmental issues, Abdalla has provided statistical data and developed educational materials. Kelly O’Neill, an agricultural policy analyst with the Chesapeake Bay Foundation, said the materials have made “complex issues understandable to the general public, and I’ve found them to be valuable resources to share with many people from diverse perspectives and levels of knowledge of the issues.”

Abdalla is perhaps best known for the use of innovative partnerships in environmental policy education, with projects built more than 15 years ago still having impacts today. For example, with funding from the W. K. Kellogg Foundation in the 1980s, he created a national coalition among the Soil and Water Conservation Society, the Freshwater Foundation and Cooperative Extension in seven states for the National Groundwater Policy Education Project—which provided small grants for state and local groundwater education and outreach efforts.

Then, Abdalla and other Penn State Cooperative Extension professionals worked with the League of Women Voters in Pennsylvania to build a similar state-level coalition (see box on next page for groundwater facts). The objective of the Pennsylvania Groundwater Policy Education Project (PA GPEP) was to “increase the capacity of state and local policymakers to make more informed decisions that affect groundwater quality and quantity,” said Edith Stevens of the Pennsylvania League of Women Voters’ nonadvocacy arm, the Citizen Education Fund. In the 1990s, that project began to award small grants for community-based partnerships

working to educate citizens and local officials about water resources protection. PA GPEP has grown into the Water Resources Education Network (WREN). Since 1992, GPEP and WREN have awarded about 220 grants to local coalitions, providing training, support and resources.

“With Charlie’s guidance ... GPEP/WREN efforts have reached millions of Pennsylvania citizens and have increased the capacity of citizen organizations and government agencies to work cooperatively to address water resources education and protection,” said Stevens.

### **New Policy Approaches Needed**

Abdalla applies these educational methods also to his work on issues related to the changes that are occurring in rural areas today. For example, farms are getting larger and increasing the number of animals, and consolidating geographically in some regions. And, in Pennsylvania, the counties with the greatest amount of agriculture are primarily the same ones that were growing in human population over the last 15 years (see box, page 4).

This can result in many things, including complaints from neighbors—about an excess of flies, for example, or the smell of manure. Abdalla and colleagues have produced educational materials about these concerns, as well as conflict management tools. Extension educators have served in informational roles within communities and acted as facilitators and mediators—a “difficult” job, Abdalla acknowledges. “We need new educational approaches,” he said.

Addressing the larger issue of the changing structure of farming, as well as the global agribusiness sector, Abdalla is chair of a working group of environmental experts—one of seven working groups commissioned by the Farm Foundation—that prepared a report on the future of agriculture in North America. This report will be introduced at briefings for government officials and industry leaders in Mexico City, Ottawa and Washington, D.C., this spring.

Policies for addressing water quality and odors, as well as the emerging issues of air quality and antibiotics and their impact on the environment, are some of the complicated issues being addressed in the Farm Foundation project. “I see my role as helping people to engage and debate these issues,” and the more people the better, stresses Abdalla.

Looking back at Abdalla’s career to date, that’s a recurring aspiration—and an effective one. ▀

### **Groundwater Facts in Pennsylvania**

- Number of people who use groundwater from wells and springs for their drinking water: 4.5 million
- In rural areas, most people depend on groundwater. In some densely populated suburban areas around Philadelphia, 60 percent of the population uses groundwater.
- One-half of the groundwater used in Pennsylvania is used for domestic water supply.

*Source: Groundwater: A Primer for Pennsylvanians, The Water Resources Education Network, League of Women Voters of Pennsylvania Citizen Education Fund*



ICT, College of Agricultural Sciences

**Agricultural nutrients travel in a number of ways, leading to nutrient surpluses and the potential for water degradation. Below, participants of the Mid-Atlantic Regional Water Quality Program discuss nutrient budget indicators at a workshop with agency officials.**

