

SIUE's National Corn To Ethanol Research Center Marks Its 20th Year With Luncheon

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EDWARDSVILLE - On October 12, Southern Illinois University Edwardsville's National Corn to Ethanol Research Center (NCERC) commemorated its 20th year with an annual meeting and luncheon. In addition to being National Farmer's Day, there was plenty to celebrate: NCERC reported 100% employment of students in the private sector, profits of \$1.9 million for the fiscal year, and proprietary research in the fermentation lab securing its place as a lead partner in the biofuel industry. NCERC reinvests more than 80% of its surplus and attracts both grant-funded and sponsored research, leading to contracts in agricultural innovation.

"America's farmers feed, fuel and clothe the world," said John Caupert, a farmer and the executive director of NCERC. For fiscal year 2023, NCERC launched a new program titled "Careers in Biotechnology." Caupert champions the center as a significant contributor to the economic development in the region and identified a key indicator of the center's impact. "The exact number is 397," said Caupert. "There are 397 persons who somewhere along their pathway to employment received hands-on applied learning here at NCERC and are now gainfully employed in the private sector. It is 100 percent."

Since 2003, NCERC has developed partnerships between university researchers and government laboratories, trade organizations and the private sector "to commercialize cutting edge bio-based technologies," said Chancellor James T. Minor, PhD. "Our goal here is to be at the center of what's happening in the region and the center of what is possible in the region."

Minor welcomed attendees with the news that because of NCERC more than 80 technologies are now in the commercial marketplace, "generating over \$7 billion in annual revenue and more than tens of thousands direct and indirect jobs. NCERC and the team here is in fact defining what is possible."

Former Congressman John Shimkus was in attendance, as well as representatives for Senator Tammy Duckworth, Congresswoman Nikki Budzinski and Congressman Mike Bost. With construction funding from both the 1996 Farm Bill and the Illinois Department of Commerce and Economic Opportunity Shimkus led the initiative to house operations in SIUE's University Park. NCERC guests enjoyed hearing about decades of success but agreed that politicians are in the majority when challenging ethanol as an energy source.

"The future is going to be renewable. You are sitting in the middle of the future energy and food landscape," said Eric McAfee, CEO of Aemetis and keynote speaker. McAfee grew up as a farmer near Fresno, CA. He says the future leaders are here on this campus and within SIU System, not with politicians in Washington, D.C. whom he says fail to understand corn. "You're sitting here with a future of energy security issue and it's being run by a bunch of people that don't know basic science," he said. "Farmers can solve this issue." McAfee noted NCERC partners as capable of setting policy and marketing the idea. He adds that the United States imports fuel for vehicles to the price of half a billion per day, effectively denying consumer choice at the pump. He encouraged instead the attainable solution of producing lower carbon emissions in the United States with hydrogen resources available via ethanol that are inexpensive and domestic. "The world needs f uture leaders who can go to Congress, the statehouse, the Department of Agriculture and say, 'I understand corn."

Renewable Fuels Association parked its flex fuel plug-in hybrid electric vehicle outside of the venue. Robert White, vice president of industry relations, shared the fuel's EPA rating of 40 miles per gallon. "So we have a fuel that can meet tomorrow's goals already available today sitting outside," he said.

Veteran researcher Yan Zhang, research associate professor of NCERC, also presented the Building Cellulosic Sugar and Ethanol Library, which is proprietary research expanding the Center's knowledge base and capabilities to convert waste into sustainable resources. Her former colleague Rachel Carpio, recalled Zhang's teaching philosophy of "Let the data talk."

"Policy is being proactive, not reactive," said Carpio who graduated SIUE with an M.S. in Environmental Science and Public Policy. She worked six years at NCERC as a scientific analyst.

Carpio, then worked in the cannabis industry and is now laboratory manager at startup firm Elemental Enzymes. She advises those pursuing careers in the agricultural industry to allow for scientific integrity. In her experience, science and policy should go hand in hand since, in her words, "science is always fixing and trying to be ahead of the game."