Battelle Study Describes Importance of Agriculture and Agbiosciences

Both are keys for economic growth, job creation and other key quality of life indicators in the United States

COLUMBUS, OH – A newly released Battelle study, “Power and Promise: Agbioscience in the North Central United States,” finds that agriculture and agricultural bioscience – “agbioscience” – are providing crucial wide ranging opportunities for economic growth and job creation in the United States.

The study also notes that agbioscience professionals at U.S. land-grant universities are leveraging advancements in modern science and technology to address crucial national and global needs, including agricultural productivity and food security, improved human health, renewable resource development (such as bio-energy and bio-based materials) and environmental sustainability.

“In our science and technology-based economic development practice at Battelle, we have observed the consistent rise of agbioscience as a core driver of economic growth and business expansion opportunities for the U.S.,” said Simon Tripp, lead author of the study. “This is an extremely dynamic sector, leveraging sustainable biobased resources to produce goods that meet large-scale market needs.”

The North Central region of the U.S. is well-positioned to fulfill the promise of new product development and job growth around modern agbioscience, Tripp said. He also said that it’s the support of America’s unique base of land-grant universities, in concert with world-leading agricultural productivity and a substantial base of world-class agricultural value-chain companies, that helps make this a reality.

According to the report, many of the most pressing challenges facing humankind have solutions rooted in modern agriculture and agbioscience. There is no other arena of economic activity, or field of science and innovation, that so directly addresses human survival and quality of life, global economic development, and prospects for an environmentally sustainable future, Tripp said.
*Power and Promise* notes that the land-grant system has played a central role in the rise of American agriculture to global preeminence, and the tremendous scale of opportunities contained in a fast-expanding bio-based 21st century economy warrant considerably more attention be paid to these core institutions. Sustained or expanded federal, state and local support will help this important land-grant, experiment station and extension education system to continue to perform its multi-faceted functions in cutting edge research for commercialization, education of knowledge workers for industry across the value chain, supply of trusted information and support for farmers and processors, and pursuit of opportunities for new collaborations and networks to grow the industry.

Underscoring the importance of the tie between land grant universities and agriculture’s significant contribution to the U.S. economy and other quality of life factors, are the following facts:

- Comprising just 6.1 percent of global land area, the United States in 2009-10 produced 18.7 percent of the world’s grains, 22.4 percent of global oilseeds and is the worldwide leader in beef and poultry production, with 20.8 percent and 23.2 percent of global production respectively. “The U.S. truly is an agricultural and agbioscience powerhouse,” Tripp said.
- The North Central region – comprising the twelve states of North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa, Missouri, Wisconsin, Illinois, Indiana, Michigan and Ohio – lead the way for the U.S. Containing 21 percent of U.S. land, the North Central region produces 45 percent of U.S. agricultural exports, and over 80 percent of key exports such as soybeans and feed grains, and more than 60 percent of meat and livestock exports.
- In addition to the more than 800,000 farms in the region, the report finds that North Central states contained more than 88,000 companies participating in the agribusiness value-added chain through the manufacturing of products and the provision of services. Taken together these farms and industries employ almost 2.4 million people with an economic output of $125 billion and pay, on average, $2,600 more per job than the average pay level for other private sector workers in the region.

The report concludes by noting that agbiosciences represent an opportunity for the United States to expand on U.S. leadership in a bio-based, sustainable resource-driven economy with wide ranging innovation and technology-based development opportunities. The North Central region of the U.S. is a clear leader in agbiosciences and production within the agricultural value-chain, a position that is supported by the R&D and education activities of agricultural experiment stations, extension systems and their twelve land-grant universities. “These institutions should be considered priorities for further strategic investment and development given their importance in realizing the intrinsic growth potential of agbiosciences for the U.S. and regional economies,” said Tripp.
The full report is available online at http://nccea.org/documents/powerandpromiseweb.pdf

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Battelle also is one of the nation’s leading charitable trusts focusing on societal and economic impact and actively supporting and promoting science, technology, engineering and mathematics (STEM) education.

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