

Improving Cricket Farming to Feed More People

Innovations to raise edible insects more efficiently will drive down the cost of this promising food commodity that is growing in popularity in North America and Europe.

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ATHENS, GEORGIA, JULY 7 2015 – New research begins today in the first U.S. Department of Agriculture (USDA) funded project to focus on insect farming for human food, concentrating on improving efficiency and lowering costs in farming crickets.

With around 25 U.S. and Canadian companies currently producing consumer products with cricket powder (finely ground crickets in a flour like form), a handful of industrial farms raise crickets for human consumption. The processes involved in farming these nutritious edible insects remain primarily manual, with labor costs in particular keeping the price of cricket powder at over \$25 per pound.

The cricket farming research, led by Georgia-based company, All Things Bugs, will study how to increase automation in raising crickets. With a particular focus on harvesting, watering and feed formulations, end goals are to enhance cricket growth while lowering the cost of raising them, which in turn can decrease the price of cricket powder.

According to All Things Bugs' founder and lead researcher on the project, Dr. Aaron T. Dossey, "In order for this growing industry to fulfill its potential, innovations must help cricket farmers raise these 'minilivestock' more efficiently and thus drive down prices for the food industry. Ultimately crickets and other insects will be the lowest cost animal-based protein on the market."

This US\$100,000 grant is the third the company has received from the USDA Small Business Innovation Research (SBIR) program.

All Things Bugs' previous funded projects have included \$100,000 from the Gates Foundation to help alleviate child malnutrition via the use of insect ingredients, \$100,000 from the USDA SBIR to further develop a "ready to use food" from insect ingredients and insect processing techniques. The company also received a



\$450,000 USDA SBIR grant to refine the patent pending technology Dr. Dossey invented to manufacture cricket powder and evaluate its functionality as a safe food ingredient.

The Gates Foundation funded project inspired Dr. Dossey to start All Things Bugs, which in 2014 became the largest insect based food producer in the world. The company produced and sold approximately 10,000 pounds of cricket powder in its first year of operation and will produce approximately 25,000 pounds in 2015.

According to the United Nations, so-called "house crickets" (*Acheta domesticus*) are just one of over 2000 species of insects already eaten around the world. Requiring 10 times less feed than cattle while producing a similar amount of protein, as much calcium as milk and high levels of many vitamins and minerals, crickets are a sustainable, nutritious food source for an increasing human population.

Dr. Dossey will present results from his current insect based food research at the 2015 Institute of Food Technologists conference and Expo in Chicago on July 13, 2015. Learn more: <u>http://bit.ly/1LSXwNx</u>

About All Things Bugs, LLC

All Things Bugs, LLC is currently the world's largest insect-based food company. All Things Bugs utilizes insects as "Low-Crawling Fruit," by developing insect-based food and feed products, insect farming technologies and insect-derived biologically active chemical compounds for use in agriculture and medicine. Learn more at www.allthingsbugs.com

About USDA SBIR

The Small Business Innovation Research (SBIR) program at the U.S. Department of Agriculture (USDA) offers competitively awarded grants to qualified small businesses to support high quality, advanced concepts research related to important scientific problems and opportunities in agriculture that could lead to significant public benefits. Learn more at <u>http://nifa.usda.gov/program/small-business-innovation-research-program</u>

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