

For Immediate Release

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University of Tennessee Research Foundation Licenses Chemical Application System to CapstanAG Systems, Inc.

Technology minimizes chemical application per seed planted while reducing costs and environmental impact

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KNOXVILLE, Tenn. – CapstanAG Systems, Inc., secured a licensing agreement with the University of Tennessee Research Foundation (UTRF) to further develop and commercialize a chemical application system that allows farmers to apply a specific amount of fertilizer or pesticide per seed planted, precisely where it is needed. This innovative system has been demonstrated to reduce the amount of chemicals required for each application, saving farmers money while reducing the environmental impact.

The idea for this technology was born from conversations between John Wilkerson, PhD, Professor of Biosystems Engineering and Soil Science at the University of Tennessee Institute of Agriculture, and West Tennessee cotton farmers, who were trying to identify ways to minimize costs associated with pesticide and fertilizer applications, while reducing environmental impacts on their land.

The resulting technology, developed by Dr. Wilkerson and two of his graduate students, was a seed specific target system. When integrated into a planter, the system allows farmers to apply a specific volume of liquid product, such as a fertilizer or pesticide, at a specific location relative to each seed planted in a furrow. The result: a perfectly timed chemical application precisely where it is needed. Field testing of a prototype on cotton revealed it could reduce fungicide use by 50% without a reduction in efficiency, and maintain the same level of protection.

“Farmers view each seed they plant as an investment,” said Dr. Wilkerson. “This technology allows them to stretch every dollar they invest in their row starter systems by accurately placing

each seed and chemical. By reducing the amount of chemicals, they use, farmers save money, waste less product, and reduce the impact of chemicals on the environment.”

In June 2012, UTRF executed a licensing agreement for this technology with CapstanAG Systems, Inc., a manufacturer known for designing and building high-tech spray equipment for agricultural applications. The resulting product, marketed as Seed-Squirter, is an add-on aftermarket unit that can be installed on most makes and models of planters.

“Dr. Wilkerson has invested a great deal of time and effort in researching, developing, and testing this technology for the marketplace,” said Dr. Nghia Chiem, UTRF Licensing Associate. “We are confident that the Seed-Squirter product will play a significant role in shifting the agricultural industry toward a ‘dose per seed’ approach for pesticide and fertilizer application.”

Although designed for use in the agricultural industry, Dr. Wilkerson foresees this technology being useful for applications in other industries, especially those that rely on assembly lines to manufacture products.

About CapstanAG Systems, Inc.

Capstan Ag is a technology-based company headquartered in Topeka, Kansas. For the past 20 years, they have specialized in creating new proprietary systems for the agricultural industry, particularly with chemical and fertilizer applications. The Capstan Ag team partnered with Great Plains to develop the AccuShot system, providing research, engineering design, plus lab and field-testing.

About the University of Tennessee Research Foundation (UTRF)

UTRF helps inventors at the University of Tennessee turn their ideas and discoveries into products and services that benefit society. In addition to supporting the university research enterprise and commercializing the resulting inventions, UTRF also supports entrepreneurship as well as state and regional economic development efforts. UTRF serves all seven of the University of Tennessee campuses and institutes across the state. For more information, visit <http://utrff.tennessee.edu>.