

The Wayback Machine - http://web.archive.org/web/20180731112322/http://newsstand.clemson.ed...



Tabletop model could help S.C. peanut producers

MEDIA RELEASE

Denise Attaway, College of Agriculture, Forestry and Life Sciences; Public Service and Agriculture
May 4, 2017



◀ 0

Share

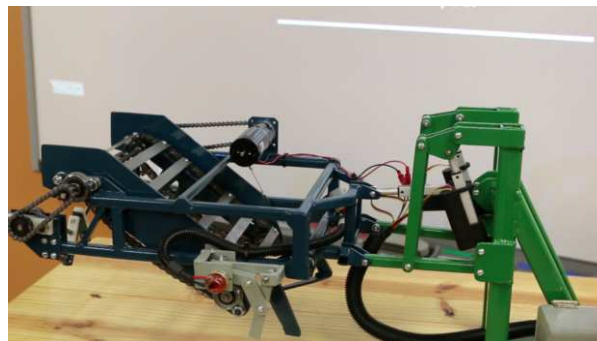
CLEMSON — A group of [Clemson agricultural mechanization and business](#) students are building a tabletop variable depth-control peanut digger to help South Carolina producers increase their profits.

The tabletop peanut digger is a Clemson University Capstone Project led by [Hunter Massey](#), a lecturer in the [Clemson agricultural sciences department](#) and a graduate student in [plant and environmental sciences](#). It is a miniature model of an automated variable depth two-row peanut digger-inverter developed by Clemson agricultural engineers at the [Edisto Research and Education Center](#) in Blackville.

“This tabletop model will do everything an actual-sized digger will do,” Massey said. “It will be used to help teach peanut producers how to use automated peanut diggers to increase profits by eliminating yield losses.”

Automated peanut diggers use depth gauges to control blade depth across a variety of soil textures. Doing this maintains a steady digging depth throughout fields regardless of soil texture, a unique and important feature for the variable clay and sandy soils in the Southeast. Digging in sandy soils can cause digger blades to dip, while clay soil pushes the blades up. In both cases, peanuts are damaged and yields are lost.

“Peanut producers typically will set their diggers to a maximum depth to try to avoid yield loss, but this can create other losses,” said Chris Cullins, a student from Mechanicsville, Maryland, who



This model of an automated variable-depth two-row peanut digger-inverter was made by Clemson seniors to help educate South Carolina growers about technology to help increase yields.

Image Credit: Denise Attaway / Clemson University

is working on the project. “Trying to dig deeper increases fuel consumption, which increases producers’ costs. This model can be used to show how variable depth control can help minimize losses.”

Grant Youmans of Estill, another student involved in the project, said the model will be used to help advance the mission of the Clemson Cooperative Extension Service, which is to, “Improve the economy, environment and well-being of South Carolinians through the delivery of unbiased, research-based information and education.”

“This model will be used as an Extension teaching tool,” Youmans said. “It will be used during Extension meetings and other educational events to help teach producers how variable-rate technology works and how this technology can help them increase their profits by reducing digging losses.”

The tabletop peanut digger model will be paired with monitors and other equipment to adequately represent real situations, said student Madison Harrington of Florence.

“We expect to have this model completed and ready for work in the fall 2017 semester,” Harrington said.

Also involved in the project is Zachary Senn of Lexington.

The United States Department of Agriculture’s National Agricultural Statistics Service says 110,000 acres of peanuts were planted in South Carolina in 2016 and 106,000 acres were harvested.

Capstone projects are research projects that replicate real-world problems. Seniors at Clemson can choose to do Capstone projects in place of comprehensive exams as final research projects before graduation.

END

Categories: [Academics](#), [College Of Agriculture, Forestry And Life Sciences](#), [Public Service And Agriculture](#)

Tags: [Agricultural Mechanization And Business](#), [Agricultural Sciences](#), [Students](#)

Contacts

Hunter Massey

massey4@clemson.edu

864-656-4056

Denise Attaway

avaa@clemson.edu

864-656-2702