Clemson tractor display to be shown at John Deere

CLEMSON – Students in the College of Agriculture, Forestry and Life Sciences (CAFLS) at Clemson University, will have their cutaway tractor displayed at the John Deere Commercial Products facility in Augusta, Ga., during winter break.

Students in the agriculture mechanization and business department have been working on the project for two years and have put more than 2,000 hours of their time into the display.

The cutaway is a full-scale model that demonstrates how the components of a tractor and engine work together. Prior to beginning work on the cutaway tractor, it was a perfectly good tractor in working order. The cuts that are made on a tractor are carefully planned in order to provide "windows" through the engine, transmission and axle housings so that the inner workings of the tractor components can be seen.

"A 12-volt gear motor is now used to turn the entire engine on the tractor," said Kendall Kirk, lecturer in the agricultural mechanization and business (AGM) program at Clemson. "Maintaining the parts in motion, in addition to providing the largest possible viewing windows, is the biggest challenge. The entire tractor and engine has to be disassembled in order to perform the cuts and then reassembled with working parts, which provides an additional challenge in making sure that the cuts did not eliminate the ability to fasten the parts and pieces back together."

The tractor was on display at the Sunbelt Agricultural Exposition in Moultrie, Ga., in October. It will be on display at the CAFLS Alumni tailgate in Fike Recreation Center on Nov. 10 and will travel to Augusta to be exhibited at the John Deere Commercial Products facility during the
latter half of December. The tractor also will be displayed in several other local and regional engine and tractor shows.

“I have been going to engine tractor and agricultural machinery shows for several years, and I have seen engine cutaways at several shows, however they were all still models, with no moving parts. I have heard of a full tractor cutaway, but never seen one at a show, and it also did not have a working power train with moving parts like the cutaway that the AGM students developed,” said Kirk.

The students involved include Mike Brown, a senior from Kingstree; Will Brown, a freshman from Kingstree; Nathan Crumley, who graduated in August 2006, from Gainesville, Ga.; Jeremy Hamilton, a sophomore from Dorchester; Brian Henderson, a senior from Ninety Six; Russell Henderson, a senior from Johnston; Frank Morelli, who graduated in December 2006, from Aiken; Russell Nafziger, a sophomore from Greenville; Wes Porter, a senior from Pickens; Chase Reinhardt a senior from Rock Hill; Tyler Seagroves, a sophomore from Myrtle Beach; and Michael Steele, a senior from Ridge Spring.