

# SWOSU Student Involved in Milk Production Research

12.15.2008

Southwestern Oklahoma State University student Jon DeMotto (center) of Norman has received a NASA Space Grant Scholarship to work on a research project in milk production on the Weatherford Campus. With DeMotto are SWOSU Allied Health Sciences Assistant Professor Dr. Lisa Appeddu (left) who serves as faculty sponsor and Madeline Baugher, principle investigator of the NASA Space Grant program on the SWOSU campus.

Southwestern Oklahoma State University student Jon DeMotto of Norman has received a NASA Space Grant Scholarship to work on a research project in milk production.

DeMotto is a chemistry major on the Weatherford campus. His project is entitled "Antibiotic resistance in microbes causing bovine mastitis."

Mastitis is the inflammation of the udder due to bacterial infection, and it can lead to lowered milk production, calf gain, and cow profitability and longevity in a herd. This project involves the isolation and identification of mastitis-causing bacteria from the milk of beef cows nursing calves.

These bacteria will be exposed to various antibiotics used in animal and human health to determine their susceptibility. DeMotto said it is hoped to identify factors which influence the rate at which cows are infected (i.e., differences stage of lactation, in breed type, etc.) and which antibiotics are still useful in treating infections. This knowledge may enable producers to better optimize the health and productivity of Oklahoma beef cows.

DeMotto is working with SWOSU Allied Health Sciences Assistant Professor Dr. Lisa Appeddu and Dr. Mike Brown of the USDA-ARS Grazinglands Research Laboratory in El Reno.

SWOSU is a member of the NASA Oklahoma Space Grant Consortium, which provides scholarship funds for students in science and technology areas at member institutions. SWOSU

matches these funds with an equivalent amount of its own. All scholarship awardees are required to volunteer 10 hours of their time to either the Stafford Air and Space Museum, located in Weatherford, or another appropriate community service organization.

The grant principle investigator is Madeline Baugher, faculty member in the SWOSU Department of Entrepreneurship and Computer Systems. Students may submit research proposals for a spring funding cycle until January 31, 2009. A description of the program and an application may be found at <http://www.swosu.edu/academics/ace/compsci/nasa/grant.asp>.