

Animal Science Weekly

September 6, 2010



Inside this issue:

- Marissa Cloum selected as Washington DC intern
- Beef 706 gives cattle producers look at production process
- 48th annual State 4-H Horse Show held in Abilene
- Welcome new students
- Research presented at International Symposium on Equine Reproduction
- Test-tube calf embryos more likely to survive Texas summers
- Paschal, Griffin conduct beef fabrication workshop in Ecuador
- Recent publication
- Upcoming events

Marissa Cloum selected as Washington DC intern

WASHINGTON, D.C. – Senior Animal Science major Marissa Cloum from Alconbury, England, is among the 15 students from the College of Agriculture and Life Sciences interning this fall in Washington, D.C., through the Agricultural and Natural Resources Policy (ANRP) Internship Program.

Cloum is an active member in Aggie Sisters for Christ and the Saddle & Sirloin Club. She grew up in a military family and lived abroad when she was young. These experiences have directed her interests towards foreign trade, particularly as it relates to livestock and animal welfare.

Cloum is interning for the National Association of State Departments of Agriculture and is looking forward to learning more about public policy and the role government plays in the realm of agriculture and related industries.

To view a complete list of the College interns and to learn more about the program, go to <http://agintern.tamu.edu/>.



Beef 706 gives cattle producers look at production process

*Story and photo by Blair Fannin
AgriLife Communications*

COLLEGE STATION - Seldom does a cattle producer get an inside look at how their calves are processed and shipped to the retail meat case.

However, a group of producers recently got that unique opportunity - and came away learning a lot more about what happens to their cattle once they leave the ranch - at the recent Beef 706 program.

The program, sponsored by the Texas AgriLife Extension Service and the Texas Beef Council, had a group of Brangus producers come to College Station to learn how cattle are graded, fabricated and packaged before being sent to the retail meat case.

“Beef 706 is a program that helps teach cattle producers about the food side of their industry,” said Dr. Dan Hale,



Dr. Dan Hale discusses grade and yield specifics during the classroom portion of the Beef 706 program.

professor, Extension meat specialist and workshop coordinator. “The goal is to see transfer from steer to a carcass and finally as retail cuts sold to the consumer. They are taught during the process not only how to evaluate a live steer, but also carcasses. They follow a steer all the way through the process and learn where the value cuts are in an animal.”

To view the complete story go to <http://agnews.tamu.edu/showstory.php?id=2109>.



48th annual State 4-H Horse Show held in Abilene

ABILENE – The 48th annual State 4-H Horse Show was held in Abilene, Texas on July 24-31, 2010 at the Taylor County Expo Center. This year's show was dedicated in memory of Alfred "Mac" Gilliat, a respected member of the State Show Management Team and former Texas AgriLife Extension Service employee.

Dr. Dennis Sigler, Extension horse specialist, co-managed the show with Teri Antilley, Extension horse program specialist.

4-Hers from 144 Texas counties entered the show for a total of 688 4-Hers who entered 900 horses in the show. That combination of youth and horses resulted in more than 1984 entries.

The high point winners in each of the six divisions were: Stock Horse - Zinn Lindsey, Stonewall County; Roping - Hayden Hill, Armstrong County; Hunter Flat - Morgan Redwine, Taylor County; Hunter Fences - Savanna Day, Taylor County; Timed Event - Kaley Mathis, Haskell County; Western Judged - Morgan Redwine, Taylor County.

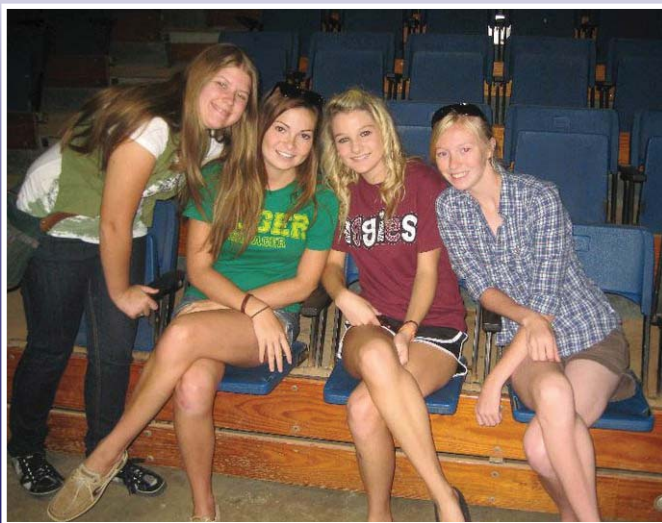
For the 10th year, Wrangler has awarded \$700 scholarships to the graduating senior 4-Her that accumulates the greatest number of points in each of the six divisions at the State Horse Show. The winners were: Stock Horse - Claire Eggers, Palo Pinto County; Roping - Logan Dee Harkey, Wilbarger County; Hunter Flat - Anna Haines, Bexar County; Hunter Fences - Alicia Erwin, Wise County; Timed - Joshua Marshall Milikien, Bexar County; and Western Judged - Anna Haines, Bexar County.



Anna Haines received two \$700 Wrangler scholarships. Haines is attending Texas A&M this fall and is majoring in Animal Science.

Special thanks to agents, volunteers and parents who served on the Horse Show Management Team.

The 49th, 50th and 51st State 4-H Horse Shows will be held at the Taylor County Expo Center in Abilene. For more information, contact Dr. Dennis Sigler at dsigler@tamu.edu or Teri Antilley at tjantilley@ag.tamu.edu.



Welcome NEW Students

The Department of Animal Science hosted a welcome party for incoming Animal Science freshmen on August 27 at Pearce Pavilion. More than 75 new students showed up to meet the Animal Science faculty, staff and Aggie REPS. Food was donated by Slovacek Sausage and Sam's Club. Many attending also enjoyed volleyball and washers.

Research presented at International Symposium on Equine Reproduction

LEXINGTON, KENTUCKY – Dr. Nancy Ing, associate professor, and Coral Dworaczyk and Jennifer Thorson, both graduate students in the Department of Animal Science, presented at the 10th International Symposium on Equine Reproduction held in Lexington, Kentucky July 25-30, 2010. Dworaczyk is working under the direction of Dr. Martha Vogelsang and Thorson is working under the direction of Dr. Gary Williams and Dr. Marcel Amstalden.

Abstract titles and those contributing were:

- Dexamethasone acutely alters gene expression in stallion testes resulting in impaired steroidogenesis. N.H. Ing, D.W. Forrest, P.K. Riggs, D.D. Varner and T.H. Welsh Jr.
- GnRH therapeutics in the anovulatory mare revisited: physiological implications and clinical benefits of inducing reproductive transition with native hormones. J.F. Thorson, C.C. Allen, M. Amstalden and G.L. Williams.
- The effect of exercise-induced heat stress on ovarian dynamics in the mare. M.C. Dworaczyk, M.M. Vogelsang, B.D. Scott, D.H. Sigler, S.G. Vogelsang and T.H. Welsh.

All abstracts have been published in *Animal Reproductive Science*.

Research News --

Test-tube calf embryos more likely to survive Texas summers

By Robert Burns

AgriLife Communications

STEPHENVILLE – Think you're uncomfortable in the extreme Texas summer heat? Try being an ovulating 1,200-pound mother cow.

Studies have shown that heat-stressed dairy cows suffer from damage to their ovarian follicles. Moreover, the eggs produced by the damaged follicles may also be damaged, said Dr. Todd Bilby, Extension dairy specialist.

Worse, after becoming heat-stressed, other studies have shown the eggs she ovulates for the next 40 or 50 days are likely to be damaged as well, according to Bilby.

Bilby and his graduate student, Brandi Stewart, have found a way to double pregnancy rates during the summer and increase the number of heifers born as compared with conventional artificial insemination commonly used on dairy farms. They believe this method could save dairies in Texas and throughout the country lots of money.

Thus heat stress puts "the heat on a dairy operator" in a number of ways, Bilby said. Not only does it reduce milk production, but by lowering fertility and increasing miscarriages, it costs the American dairy industry \$1.5



billion annually.

"That's an estimated economic loss of \$132 million to the Texas dairy industry alone," Bilby said.

Heat stress is also hard on the developing embryo if the mother cow does become pregnant. Consequently, it may die in the first two to three days of its development, he said.

"If a lactating dairy cow's egg actually becomes fertilized during summer, for which she only has a 50 percent chance, then there is still a very good chance the cow will not become pregnant because the early growing embryo is more likely to die within the first three days of life," Bilby said.

This is also bad news for the dairy cow and reduces profit margins for the dairy operator. When a heifer or a mature mother cow doesn't become

pregnant, the dairy operator not only loses a calf, but the cow won't be giving birth, which in turn means she won't lactate, so he loses valuable milk production.

As it's prohibitively expensive to feed and care for a non-productive cow until the next time she has another chance to become pregnant, the operator often has to make the hard choice of selling her to the packing plant, Bilby said.

For decades, modern dairies rely mostly upon artificial insemination, using frozen sperm, to get cows pregnant as they come into heat. Since the late 1980s and early 1990s, embryo transfer systems – test-tube calves – have been used.

As the egg is fertilized in lab under climate-controlled conditions, the resulting in-vitro embryo is not subject to the heat-stress induced mortality rate of an in-vivo embryo, Bilby said. The in-vitro embryo is transferred to the mother cow when it is seven days old.

However, embryo transfers have issues of their own, he said. The first issue used to be cost of producing viable embryos by causing cows to superovulate – producing large numbers of eggs at one time – with fertility drugs. But today, there's an alternative.

Paschal, Griffin conduct beef fabrication workshop in Ecuador

QUITO, ECUADOR – Dr. Joe Paschal, professor and Extension livestock specialist, and Dr. Davey Griffin, associate professor and Extension meat specialist, traveled to Quito, Ecuador in August to conduct a beef fabrication workshop. The workshop is part of a grant entitled *Cattle Production and Dairy Product Technical Assistance for Ecuador* coordinated by the Borlaug Institute.

Plant managers, supervisors and in-plant veterinarians from two beef/veal processing facilities attended the two-day workshop, with classroom instruction on topics including pre-harvest and post-harvest information and technology. Pre-harvest information and technology included the use of breeds and breeding systems, selection with breeds (especially dual purpose), beef cattle nutrition, types of cattle, live cattle grading (for muscle), feedyard management (cattle feeding in general), adoption of this information by smaller landowners, vaccinations (type, method, timing, amount, etc). Post-harvest information and technology included how to make American style cuts, explanation of the USDA classification systems for quality and yield grades, how to improve carcass cutability and meat quality, how to improve beef safety, international (export)



Davey Griffin, back left blue apron, and Joe Paschal, back right blue apron, with workshop attendees in Quito, Ecuador.

requirements, and elements of food packing and processing.

Following the classroom portion, the class was divided by plant and each of the next two days a beef fabrication demonstration was conducted in one of the beef processing facilities. Comments from the participants to the co-operating USDA/FAS and Ecuadorian Undersecretary of Agriculture were extremely positive.

Recent publication

Dewey, S.T., Mendonca, L.G., Lopes, G. Jr., Rivera, F.A., Guagnini, F., Chebel, R.C., and Bilby, T.R. Resynchronization strategies to improve fertility in lactating dairy cows utilizing a presynchronization injection of GnRH or supplemental progesterone: I. Pregnancy rates and ovarian responses. *J. Dairy Sci.* 2010 Sep; 93 (9): 4086-95.

Upcoming events

Animal Science Graduate Student Association Club Meeting (Sept. 8, 2010 - Kleberg Faculty Lounge - 5:15 p.m.) - For more information contact Amber Adams at amber.l.adams@tamu.edu or go to <http://asgsa.tamu.edu>.

Sonora Ram Test (Sept. 13-14, 2010 - Texas AgriLife Research Station at Sonora) - For more information, go to <http://agnews.tamu.edu/showstory.php?id=2079>.

Department of Animal Science Seminar Series (Sept. 15, 2010 - Kleberg Faculty Lounge - noon) - Dr. Bill Pinchak, professor, Texas AgriLife Research and Extension Center in Vernon, will present "Beef Cattle Microbial Ecology: The Era of -omic Sciences." For more information, contact Dr. Tryon Wickersham at tryon@tamu.edu.

CenTex Beef Cattle Symposium (Sept. 24, 2010 - McGregor Research Center) - For more information, go to <http://agnews.tamu.edu/showstory.php?id=2072>.

Department of Animal Science Seminar Series (Sept. 29, 2010 - Kleberg Faculty Lounge - noon) - Dr. Gary Snowder, associate director for the Institute for Countermeasures Against Agricultural Bioterrorism, will present, "Overview of the National Center for Foreign Animal and Zoonotic Disease Defense." For more information, contact Dr. Tryon Wickersham at tryon@tamu.edu.



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