



British White Cattle Association of America

Spring 2017 eNews
John Kugler, Editor

2017 BWCAA National Show and Sale - Purcell, OK October 6-7

If you haven't already, mark your calendars for the 2017 BWCAA National Show and Sale. We encourage all members to join us in Oklahoma for the third consecutive year at this venue. The facilities are great, the hospitality is super and the weather has been wonderful for this event. Both the show and sale were quite successful last year. If you have registered British Whites for sale or desire to begin your British White experience or add to our herd, this is the place to do it!

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Send 'em Some British Whites!

A recent news release out of the University of California, Davis reported some initial research findings concerning the genetic potential of cattle that prefer grazing the hills rather than the valleys in rough or hilly/mountainous rangeland. Why is that important? It is important to those interested in rangeland sustainability and the quality of drinking water, especially those in the western states like California. In California, 38 million acres of rangeland, mostly mountainous or hilly, is managed for livestock production. Cattle that congregate and continuously graze, poop and muddy-up the waterways in the valleys near creeks and streams increase the risk of reducing the quality of water which eventually supplies the human populace with fresh water. The article states that 80% of the state's drinking and irrigation water is stored in or passes through rangeland.

Animal scientists, including Derek Bailey of New Mexico State University, have noticed that some cattle will leave the lush meadows and valleys and "head for the hills" to graze. They wondered if these hill climbers were genetically predisposed to exhibit this behavior and if so, could we breed for this behavior just like we do for other traits. Bailey is



Photo by J Kugler

joined by University of California animal geneticist Juan Medrano and Milton Thomas of Colorado State University in an attempt to develop methods of identifying and genetically (DNA) tagging hill climbers.

To identify hill climbers, the team utilized GPS collars on 180 cows to track their movement at 10 minute intervals for several months. They took blood samples to test for "chromosomal commonalities" to see if the hill climbing tendencies were genetically linked with other traits. They monitored weaning weights, pregnancy rates, blood pressure and disposition. They were concerned that hill climbers may be more flighty or less docile, but found no cause for concern. So far, the team has found no correlation between hill climbing and any undesirable traits.

What they hope for is some ecological and economic benefits to breeding cattle for better utilization of the forage availability of varying terrain. Perhaps we can lend a hand and send them some British Whites!

Source: <https://www.ucdavis.edu/news/hill-climbing-cows-may-help-rangeland-sustainability/>.

Keeping AI Simple Yields Rewards

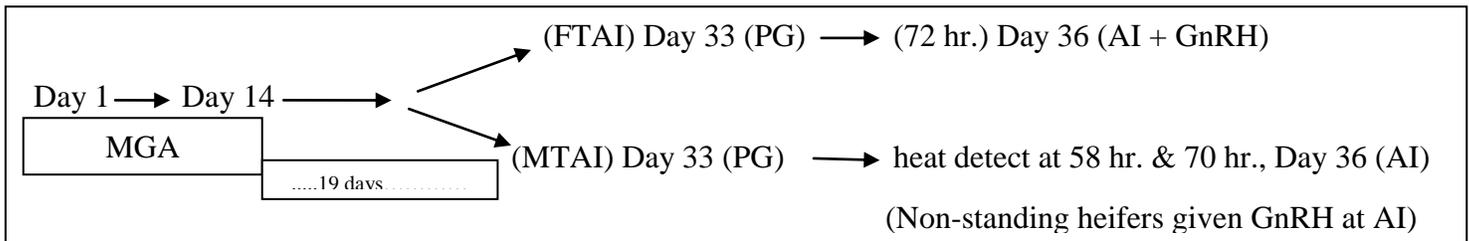
Many producers are reluctant to utilize Artificial Insemination (AI) protocols because of the labor involved. Several of the common AI protocols require monitoring the behavior of cows and heifers to determine when they are in standing heat (when the female will stand still without moving off when attempts are made by other cattle to mount them). Heat detection can be quite time consuming. It is especially troublesome when the producer works off the farm. In some "timed" AI protocols involving synchronized estrus, females in a group treated identically will vary by as much as 24 hours from the time of prostaglandin administration to the onset of standing heat. This may mean that the AI technician will have to make multiple visits to the farm to do the insemination procedure. Newly reported research <http://beef.unl.edu/documents/2017-beef-report/201703-Timed-Insemination-vs-Modi-ed-Estrus-Detection-in-Beef-Heifers.pdf> has demonstrated that one Fixed-Time (TAI) protocol that does not rely on heat detection is equal to the same procedure with heat detection in AI conception rate.

In the study reported above, researchers utilized a Long Term protocol called "MGA – PG". This protocol takes 36 days from start to finish. A group of 971 yearling heifers were fed progestin (MGA pellets - melengestrol acetate) for 14 days to synchronize estrus. On day 33 (19 days after the end of MGA feeding) they administered prostaglandin (PG) (Lutalyse). Also on day 33, the heifers were split into two equal groups (486 and 487). See Figure 1 below.

One group called "Fixed Time AI" (FTAI) were left alone until day 36 upon which they were AI and given Gonadotropin-releasing Hormone (GnRH) (Fertagyl).

Background facts:

- Ovulation occurs 25 to 32 hours after the onset of standing heat.
- Sperm are thought to remain viable in the female reproductive tract for up to 18 to 24 hours. Sperm must be in the reproductive tract for at least 6 hours before they are capable of fertilizing the egg.
- The best time to inseminate is during the last half of standing heat, usually 12 hours after the onset of standing heat.



The other group, called “Modified Timed AI” (MTAI), also received a patch on their tail head. The patches are coated with a red pigment that rubs off when be mounted by other females. Experience has shown that when greater than half of the pigment is rubbed off it indicates the onset of standing heat. The MTAI group was monitored for onset of standing heat at 58 hours post-PG (day 35.5) and 70 hours post-PG (day 36). Heifers showing estrus at 58 hr. post-PG were sorted into a separate pen. Likewise, heifers showing estrus at 70 hr. post-PG were put in a separate pen. Then on day 36

this group was AI in the following order; 58 hr. post-PG, 70 hr., and finally heifers not showing estrus. Heifers not showing estrus were given GnRH at AI. Thirteen days after AI, bulls were put with all heifers at a bull to heifer ratio of 1:50 for 42 days.

AI pregnancy rates for both FTAI and MTAI were 62% (with ± 5% accuracy). Furthermore, final pregnancy rates were not statistically different, 96% and 97% for FTAI and MTAI, respectively.

The study suggests that the reduction in labor by eliminating estrus detection and limiting cattle handling does not compromise AI conception rates. You can download suggested AI protocols for cows and heifers at <http://beefrepro.unl.edu/pdfs/Protocols%20for%20Sire%20Directories%202017.pdf>.

Cows Smell Great!

Remember the old western movies when during the cattle drive the wranglers would worry about their thirsty herd stampeding to the river because they could “smell” the water? Hollywood fantasy or was it based on real experience? Well, since the development of genome sequencing of plants and animals, evidence supports the observation that cattle have a very good sense of smell. It is written that cattle can detect odors from a distance of 5 miles. (They didn’t say which way the wind was blowing). We know dogs have a great sense of smell. And mice can find the pantry in a heartbeat.

Olfactory receptor (OR) genes condition animal bodies to detect odors. Animals differ in the amount of these genes. Humans have 396 OR genes, dogs 871, mice 1130, horses 1066 and cows a whopping 1186.

Pure water (H₂O) has no odor. So, apparently what they are detecting are odors from moist soil, foliage, algae, bacteria and other compounds in the water. Some suggest that horses and cows can sense a higher level of humidity in the air when close to a large water source.

Rowdy Yates had good reason to be concerned about stampedes. If you are trailing thirsty cows, and they’re determined to take off in their own direction, best get out of the way!

Reminder! Animal Registration Due Dates

Save \$5/head by registering them before they reach 250 days old.

Birth date

Last day to register before 250
days old

August 1, 2016	April 8, 2017
September 1, 2016	May 9, 2017
October 1, 2016	June 8, 2017
November 1, 2016	July 9, 2017
December 1, 2016	August 8, 2017
January 1, 2017	September 8, 2017
February 1, 2017	October 8, 2017
March 1, 2017	November 6, 2017
April 1, 2017	December 7, 2017
May, 1 2017	January 6, 2018

Comments or Suggestions for e-News?

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