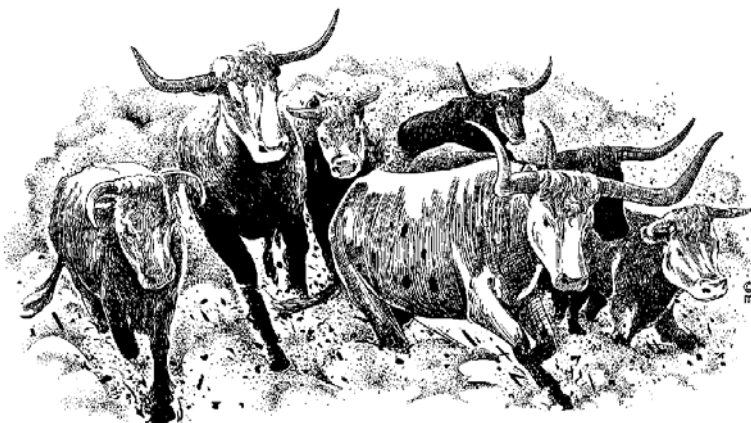


Institute of Food and Agriculture Sciences

Marion County Extension Service  
2232 NE Jacksonville Road  
Ocala, Florida, 34470  
(352) 671-8400



Vol. 12, No. 1

## MARION COUNTY LIVESTOCK NEWS

DECEMBER 2005



### Equine Education Courses

Marion County Extension will offer 2 Equine Care and Technology courses, **Basic and Advanced**, beginning Monday, **January 23<sup>rd</sup>, 2006**.

**Basic** topics include: anatomy and conformation, equine nutrition, herd/health and first aid, handling horses and restraint, breeding, foaling, as well as barn management and farm safety.

**Advanced Course** This course is designed to expand the knowledge of equine industry professionals. Classes for this course change each year and have included such topics as advanced reproduction, animal welfare, horse farm economics, genetics, ethology-the study of equine behavior, performance horse lameness, advanced equine nutrition, and preventative medicine, etc.

Each course consists of nine sessions. Classes will meet at Central Florida Community College beginning Monday night January 23<sup>rd</sup>, 2006, from 6-9 p.m. The Community College is located on SR 200 in Ocala. Cost for each class is \$60.00.

For more information contact Mark Shuffitt at (352) 671-8400, or the Continuing Education Department of Central Florida Community College at (352) 237-2111.

**F**  
**o**  
**a**  
**i**  
**n**  
**g**  
  
**W**  
**o**  
**r**  
**k**  
**s**  
**h**  
**o**  
**p**

**2005**

A small black and white illustration of a cowboy wearing a hat and boots, standing next to a horse.

**Thur., December 15<sup>th</sup>**  
**7:00-9:00 p.m.**

**Marion County Agriculture Center**  
**2232 NE Jacksonville Road**  
**Ocala, Florida**

**TOPICS:**  
**BROODMARE MANAGEMENT**  
**THE FOALING PROCESS**  
**POSTPARTUM EVALUATION**  
**AND**  
**CARE OF NEW BORN FOALS**

**SPEAKERS:**  
**Ken Breitenbecker, CloverLeaf Farms II**  
**Sandra TenBroeck, UF Dept. Animal Sciences**  
**Dana Zimmer (DVM), UF Extension Veterinarian**  
**Mark Shuffitt, Marion County Extension**

**For more information call (352) 671-8400.**

**D**  
**O**  
**O**  
**R**  
  
**P**  
**R**  
**I**  
**Z**  
**E**  
  
**D**  
**R**  
**A**  
**W**  
**I**  
**N**  
**G**  
**S**

# The MARION COUNTY CATTLEMEN'S ASSOCIATION

Proudly Presents the

## 50<sup>TH</sup> Annual Ocala Graded Bull Sale January 10th, 2006

### **"THE NATIONS OLDEST CONTINUOUS GRADED BULL SALE"**

The Ocala Bull Sale is held each year on the second Tuesday of January at the Southeastern Livestock Pavilion in Ocala. Grading takes place beginning at 8:00 am on the day before the sale. Buyers are welcome to preview the bulls on Monday (all day) and Tuesday (until noon).

All bulls are evaluated on weight, condition, conformation, scrotal circumference and EPD's then assigned a grade from A+ to C. Bulls that do not score a "C" grade or higher are sifted from the sale. Each bull is a guaranteed breeder by the consignor. All bulls will have been semen tested by an accredited veterinarian within 30 days of the sale. A certificate of breeding soundness will accompany all bulls at the sale. If you are in the market for one or more bulls, you don't want to miss this opportunity. The 50th Annual Ocala Bull Sale promises to offer one of the best selections of top quality bulls in the Southeast.

## 23<sup>rd</sup> Annual Florida Cattlemen's Institute and Allied Trade Show

**January 19<sup>th</sup> 2006**  
**Osceola Heritage Park**  
**1921 Kissimmee Valley Lane off**  
**HWY 192 East of Kissimmee**

THIS YEAR'S THEME:

**"BASICS FOR THE FUTURE"**

## Beef Cattle Management Tips

### DECEMBER

- ⇒ Check mineral feeder
- ⇒ Begin grazing small grain pastures, if ready
- ⇒ Check for external parasites and treat if necessary
- ⇒ Deworm cows and heifers prior to winter feeding season
- ⇒ Check cows regularly for calving difficulties
- ⇒ Rotate calving pasture to prevent diseases
- ⇒ Observe calves for signs of scours
- ⇒ Investigate health of bulls **before** you buy
- ⇒ Check replacement heifers to be sure they will be ready to breed 3-4 weeks prior to the main cow herd
- ⇒ Complete review of management plan and update for next year.

### JANUARY

- ⇒ Buy only performance tested bulls with superior records.
- ⇒ **Attend Ocala Bull Sale January 10<sup>th</sup>, 2006**
- ⇒ Apply lime for summer crops.
- ⇒ Check for lice/treat if necessary.
- ⇒ Control weeds in cool season pasture.
- ⇒ Begin grazing winter pastures when approx. 6" high. Rye should be 12"-18" high.
- ⇒ Check and fill mineral feeders.
- ⇒ Put bulls out for October breeding season.
- ⇒ Make breeding herd lists for single sire herds.
- ⇒ Observe cows: record heat, breeding abnormalities, discharges, abortions, retained placentas, difficult calvings, etc.
- ⇒ Observe cows for calving difficulties.
- ⇒ Observe calves for signs of scours.
- ⇒ Make sure bulls have adequate nutrition; so they will be in good condition for the breeding season.
- ⇒ Discuss herd health with your veterinarian and outline a program for the year.
- ⇒ Watch for grass tetany on winter pastures.
- ⇒ Increase magnesium levels in mineral mixes if grass tetany has been a previous problem.
- ⇒ Vaccinate cows and heifers against vibriosis and leptospirosis prior to the breeding season.

John Mark Shuffitt  
Livestock Agent III  
Marion County Extension Service

The Institute of Food and Agriculture Sciences is an Equal Employment Opportunity-Affirmative Action Employer authorized to provide research, educational information and other services only to individuals and institutions that function with out regard to race, color, sex, age, handicap or national origin. Persons requiring special accommodations should contact the Extension Service one-week in advance of program for assistance.

## “Let There Be Light”

Even though, horses are faster, stronger, and more competitive (as a whole) than at any other time in history, equine reproductive efficiency is the lowest of all domestic animals. For owners and managers whose primary concern is “settling” mares and maintaining pregnancy, a thorough understanding of the broodmare’s annual reproductive cycle is essential.

Most breed registries use January 1<sup>st</sup> as the official birthday for all foals born within a given year. Since horses typically compete by age (especially in their first 5 years) most breeders strive to have foals born as close to the first of the year as possible. Gestation in mares is approximately 343 days. To predict expected delivery date, first determine the day of ovulation then add one year (365 days) and subtract 22 days. For instance, a mare that has been bred and ovulates on February 22 will be due to foal on January 31 of the following year.

Mares, unlike other farm animals, exhibit seasonal patterns to their reproductive cycle. This annual reproductive cycle is divided into four major parts.

**1) Anestrus** – Period of reproductive incompetence, no estrous cyclicity, no follicle development or ovulation. Usually occurs from November to January in the northern hemisphere.

**2) Vernal Transition** – Period when mares begin to renew reproductive processes. This is a slow process that requires several weeks or even months to complete. Most mares begin to show some signs of increasing reproductive activity soon after winter solstice (the shortest sunlight day of the year). The long, sporadic periods of heat that precede the first ovulation, likely explain a great deal of poor breeding results since they occur well before the first ovulation of the year. Mares will not become fertile until they ovulate, even though they may be receptive to the stallion. It is extremely important to know when a mare has her first ovulation of the season. No real pattern can be noticed until the mare ovulates for the first time.

**3) Breeding Season** – The first ovulation of the year signals the end of vernal transition and marks the beginning of the breeding season. For horses in the northern hemisphere, the average time of first ovulation is the first week of April. A good indication of first ovulation and that a mare is beginning to cycle normally is following a period of sporadic heat, the mare will go out of heat and remain out of heat for 14-16 days before coming back in heat. All signs of heat usually end quickly one day after ovulation. Correctly detecting when a mare is in heat is essential in order to breed her at the most optimal time.

Studies on large type horses show that only 25 percent of mares are ovulating in February when the breeding season opens. These same studies show 55 percent of mares ovulate in March, and that 94 percent of mares ovulate in April. Ovulation rates remain above 90 percent through August. Mares’ ovulation rates steadily decline September through November, and are down to 40 percent by December. January ovulation rates are the lowest of the year, bottoming at only 20-25 percent.

**4) Autumnal Transition** – This is the most difficult period to define and is highly variable in timing. This phase begins once the last ovulation of the year has occurred. The only way we know the last ovulation is that no more ovulations occur. However, usually by the time of year autumnal transition occurs, most broodmares have either been confirmed pregnant, or the breeder has given up for that particular breeding season.

### **What makes this annual reproductive cycle work?**

The pineal gland is a small organ shaped like a pine cone (hence its name). This gland is composed of “pinealocytes” and glial cells. In older animals, the pineal gland often contains calcium

deposits. Light exposure to the retina is first relayed to the nucleus of the hypothalamus, an area of the brain well known to coordinate biological clock signals. Fibers from the hypothalamus descend to the spinal cord and ultimately project to the superior cervical ganglia, from which neurons ascend back to the pineal gland. The pineal gland transduces signals from the sympathetic nervous system into a hormonal signal. This gland synthesizes and secretes melatonin, a structurally simple hormone that communicates information about environmental lighting to various parts of the body.

The effect of melatonin on reproductive systems can be summarized by saying that it is anti-gonadotropic. In other words, melatonin inhibits the secretion of the gonadotropic hormones [luteinizing hormone \(LH\)](#) and [follicle stimulating hormone \(FSH\)](#) from the anterior pituitary. Ultimately, melatonin has the ability to entrain biological rhythms and has important effects on reproductive function of many animals. Synthesis and secretion of melatonin is dramatically affected by light exposure to the eyes. *The fundamental pattern observed is that serum concentrations of melatonin are low during the daylight hours, and increase to a peak during the dark.* (Bowen DVM, PhD; Colorado State University)

### **Manipulating the Heat Cycle**

Due to the facts that most mares do not have their first ovulation until April, and most breed registries use January 1<sup>st</sup> as the official birthday for all foals born within a given year, owners and managers of broodmares may want to use “artificial light” to advance the onset of the breeding season. It is important to allow time for the influence of artificially long daylength to be expressed and to allow time for natural progression through the normal events of vernal transition. Remember, this take several weeks up to a couple of months to complete.

The simplest most effective management tool for getting mares to cycle before their natural breeding season is the use of extended daylength. To advance the onset of breeding season into mid-February instead of late March or April, mares in the northern hemisphere should be started under artificial light no later than the first of December. The response is not immediate. Most mares will show a behavioral reaction, such as shedding, 30 to 60 days after the program is started. The mare’s first ovulation should occur 60 to 90 days into the program. Research shows that the time of year this program is started appears to be more important than the type of program used.

How much light is enough? Add 2 1/2 hours of light at the end of the day (sunset) at a rate of 10 foot candles. Ten foot-candles is defined as the amount of light of 10 candles from a distance of 1 foot. The practical estimate of this is the amount of light generated by a single 100 watt bulb in a 12’ X 12’ stall. Mares may also be put under “artificial light” in large paddocks. When lighting large paddocks, make sure there are no “dark” areas where mares can escape the “artificial light”.

Use a single reflex lens camera with through-the-lens metering to determine if enough light is present. Cover the lens with a plain white Styrofoam cup (no letters), set ASA to 400, and shutter speed to 1/4 second. Walk around stall or paddock and check for dark areas. Aperture should read 5.6 in all areas. If aperture is 5.6 or greater, enough light is present. If the aperture reads less than 5.6 increase the intensity of the light.

A little less scientific method to measure the intensity of the light is the “newspaper test”. There will be enough light to stimulate the mare if there is enough light to comfortably read a newspaper.

Marion County Extension Service  
University of Florida  
2232 NE Jacksonville Road  
Ocala, FL 34470-3615

Auto  
Non-Profit Org.  
US POSTAGE PAID  
OCALA, FLORIDA  
PERMIT NO. 338

---

## Mr. Common Sense (aka Horse Sense)

Today we mourn the passing of a beloved old friend, Mr. Common Sense.

Mr. Sense had been with us for many years. No one knows for sure how old he was since his birth records were long ago lost in bureaucratic red tape.

He will be remembered as having cultivated such value lessons as knowing when to come in out of the rain, why the early bird gets the worm and that life isn't always fair. Common Sense lived by simple, sound financial policies (don't spend more than you earn) and reliable parenting strategies (adults, not kids, are in charge).

His health began to rapidly deteriorate when well intentioned but overbearing regulations were set in place. - Reports of a six-year-old boy charged with sexual harassment for kissing a classmate; teens suspended from school for using mouthwash after lunch; and a teacher fired for reprimanding an unruly student, only worsened his condition.

Mr. Sense declined even further when schools were required to get parental consent to administer aspirin to a student; but, could not inform the parents when a student became pregnant and wanted to have an abortion.

Finally, Common Sense lost the will to live as the Ten Commandments became contraband; churches became businesses; and criminals received better treatment than their victims.

Common Sense finally gave up the ghost after a woman failed to realize that a steaming cup of coffee was hot, she spilled a bit in her lap, and was awarded a huge financial settlement.

Common Sense was preceded in death by his parents, Truth and Trust, his wife, Discretion; his daughter, Responsibility; and his son, Reason. He is survived by two stepbrothers; My Rights and Ima Whiner.

Not many attended his funeral because so few realized he was gone.