



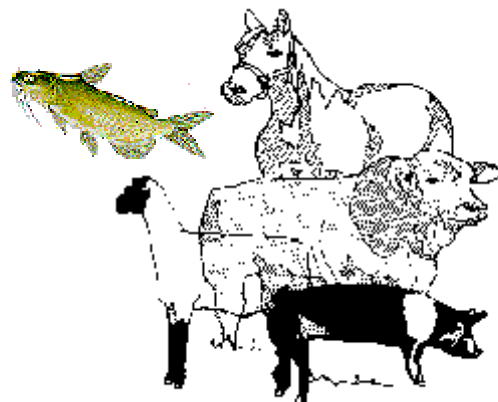
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# Livestock Newsletter

January/February 2001

<http://www.ces.uga.edu/Agriculture/asdsvm/beef-home.html>

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Robert L. Stewart  
Extension Coordinator  
Animal and Dairy Science Department

PUTTING KNOWLEDGE TO WORK

COLLEGE OF AGRICULTURAL AND ENVIRONMENTAL SCIENCES, COLLEGE OF FAMILY AND CONSUMER SCIENCES  
WARNELL SCHOOL OF FOREST RESOURCES, COLLEGE OF VETERINARY SCIENCES

The University of Georgia and Ft. Valley State University, the U.S. Department of Agriculture and counties of the state cooperating.  
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# LIVESTOCK NEWSLETTER

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January-February 2001

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## What Estrous Synchronization Protocol is Right For You?

Timothy Wilson  
Extension Animal Scientist - Beef Cattle

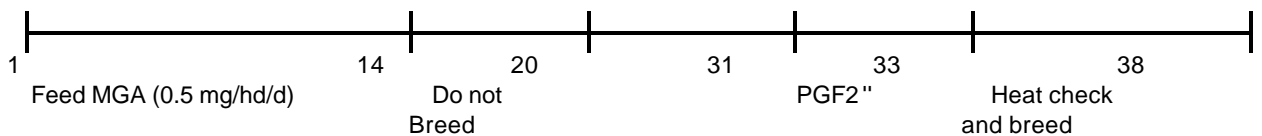
As temperatures dropped lower for the winter months, many producers began their calving season. Everyone enjoys baby calves especially when they are born as a result of a planned breeding season the year before. Planning a breeding season can be as basic as defining the time frame a bull has to breed a herd and as intensive as artificial insemination (AI) programs. When utilizing AI, producers must check heat to determine when to breed each cow or heifer. Many producers use an estrous synchronization protocol to minimize the amount of time and labor required to accurately detect heat.

What makes a synchronization protocol right for you? There are many factors that must be considered to determine which protocol to use. Time, labor, cost, ease of use and even breed can play a role in making this decision. Each day, in any herd, there can be up to 5% of the females cycling. Utilizing these protocols will reduce the amount of time required to check heat, in turn leading to an increase in the number of cattle bred AI rather than by a clean up bull.

Breeding heifers can be very difficult and take a great deal of time. Synchronizing these cattle can result in less stress and worry. Two protocols that have been used successfully with heifers utilize Melengestrol Acetate (MGA) and Prostaglandin (PGF<sub>2</sub>).

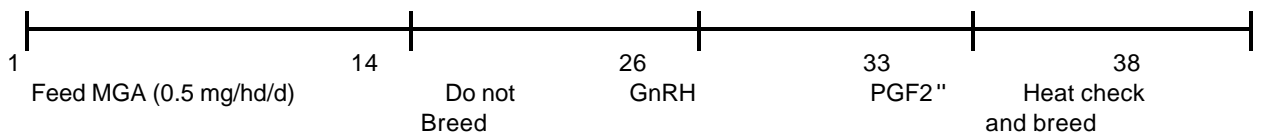
### The MGA/PGF System

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Feed MGA for 14 days at 0.5 mg/hd/d. A dead heat should occur from day 14 – 20, do not breed at this time. Between days 31 – 33, a single shot of PGF<sub>2</sub> is injected intramuscularly (IM), allowing for heat to be observed and bred at from day 33 – 38.



### The MGA/GnRH System

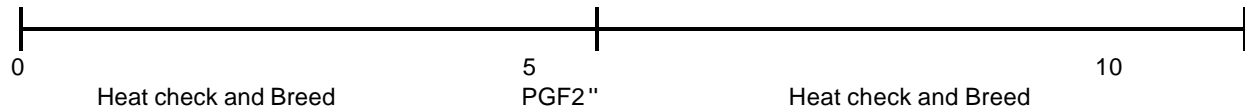
This program is similar to the previous, in that you feed MGA for 14 days at 0.5 mg/hd/d. At day 26, a shot of Gonadotropin Releasing Hormone (GnRH) is applied IM, this is followed seven days later (day 33) by a shot of PGF<sub>2</sub> IM. Heat check and breed from day 33 – 38.



Although these protocols may seem complicated, they have been proven to work successfully for many producers. Other protocols include: The Moody System, Select Synch, Co-Synch and Ov-Synch.

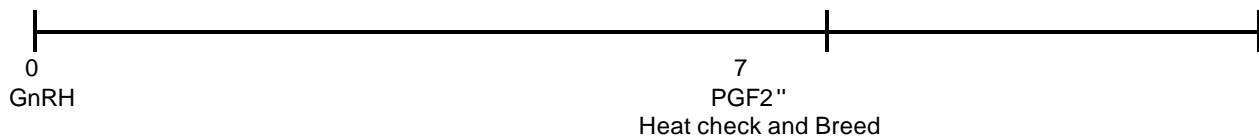
### **The Moody System**

Heat check and breed for 5 days, then sort cattle that have not been bred, and inject PGF<sub>2</sub>. Heat Check and breed for 5 additional days.



### **Select Synch**

GnRH is injected IM at day 0, followed by PGF<sub>2</sub> IM at day 7. Breed cattle that show heat before day 7 and do not inject PGF<sub>2</sub> in those cattle. This will reduce drug costs and maximize conception rates.



### **Co-Synch**

GnRH is injected IM at day 0, followed by PGF<sub>2</sub> IM at day 7. GnRH is injected again at day 9, and time bred.



### **Ov-Synch**

GnRH is injected IM at day 0, followed by PGF<sub>2</sub> IM at day 7. GnRH is injected again at day 9, and time bred on day 10.



These are just a few of the many protocols that are currently being advertised. If you have any questions, please feel free to contact your local County Agent or call me at 912/618-5639.

# Rations Using By-Products

Robert L. Stewart  
Extension Coordinator  
Animal & Dairy Science Department

It is now toward the end of a very long winter in Georgia. Cattle producers had to start feeding hay earlier than normal in most areas and the near record cold meant that hay consumption has been higher than average. This unfortunate situation follows a summer drought where most of Georgia experienced a shortage in production of hay. Especially hard hit have been operations (both cow-calf and stocker) which depended on winter annuals for a large portion of their forage needs. I have had numerous requests in the past few weeks to formulate rations using cheap sources of protein, energy and fiber. Fortunately, there are some by-products available that can be used at a fairly attractive price, especially compared to the prevailing price of hay.

Enclosed is a table which contains a number of rations for stocker calves. These are designed to be fed free-choice. They should support the same level of gain that might be expected from winter annuals (1.75-2.0 lbs./day). These same rations can be limit-fed to lactating brood cows in order to stretch hay supplies. If hay is adequate, then 5-10 lbs. per day will provide adequate nutrition. If hay is extremely limited, then the fiber component should be increased 50-75 percent. I should emphasize that the type of fiber is important. Cows, being ruminants, require long particle size in order to maintain proper rumen function. Hay works especially well to provide this "scratch factor." Unfortunately, the fiber sources in these rations might not. The soyhulls and citrus pulp are ground finely, especially if pelleted, and will not do a good job supporting rumen function. If these ingredients are the source of fiber, it is important to provide a few pounds of hay per day.

Also, enclosed is a list of brokers for these and other by-products. There are other brokers which can provide the same service. If you know of brokers, please contact me and I will add them to the list.

## Feed Brokers

### Coast Grain

Location: Cartersville, GA  
Contact: Stuart Norman or Kellie  
Phone: 800-231-7934

### Coast Grain

Location: Albany, GA  
Contact: Thomas Cromer  
Phone: 800-315-5183

### Heritage Wholesale

Location: Loudon, TN  
Contact: Joe Rambo  
Phone: 888-749-4303

### Feed Brokers, Vegco, Inc.

Location: Dawsonville, GA  
Phone: 706-216-6887

### MSP Feeds

Location: Eatonton, GA  
Phone: 706-485-8539

### Cherokee Milling

Location: Center, AL  
Phone: 800-973-7384

### HADCO

Location: Gibson, GA  
Contact: Larry Hadden  
Phone: 706-547-0862

### ADM

Location: Valdosta, GA  
Contact: Sammy Wright  
Phone: 800-645-2853

### Chickasha of Georgia

Location: Tifton, GA  
Contact: Brad Moretz or Robert Claire  
Phone: 912-388-8008

### Mid Georgia Processing

Location: Vienna, GA  
Contact: Jim Lemley  
Phone: 770-752-8345

## STOCKER RATIONS USING BY-PRODUCTS

Ingredient	Rations (lbs/ton)										
	1	2	3	4	5	6	7	8	9	10	11
Grain	550		750	725	990	1150	275	850	550		
Fiber			800	350	685	700	575	350		150	575
Broiler Litter	1050	1000							750		
WCS	400	400	450								
Soyhulls								700	700		
Citrus Pulp		600					950			450	875
Brewers Grain				925						1400	
Corn Gluten					325						550
CSM						150	200	100			

### NOTES:

- These rations are designed to support approximately 2.0 pounds gain/day.
- All rations should be supplemented to provide Vit. A. This can be in a mineral containing 100,000 IU Vit A per pound of mineral or by adding 3 million units per ton of feed.
- Grain is assumed to be corn: substitute 50% as wheat, milo, cookie meal (or other starch source) if economics dictate.
- Fiber source can be peanut hulls, cottonseed hulls, cotton gin trash or ground hay.
- Hay should be provided free-choice.
- Provide a mineral containing approximately 9-12% Ca and 6-9% P for rations 1-9.
- Provide a mineral containing approximately 6% Ca and 6% P for rations 10-11.

## Emergency Exemption for Diuron Use in Catfish Ponds

Gary J. Burtle  
Animal and Dairy Science - Tifton, GA

Georgian catfish farmers can now use Diuron or Nautilus Aquatic Herbicide to control blue-green algae that cause off-flavor in their catfish. An emergency exemption of use of the herbicide diuron was granted by U.S. EPA in late December 2000 and will be active until November 30, 2001. This exemption is similar to exemptions that have been granted for use of this herbicide in Alabama, Arkansas, Louisiana, Mississippi, and South Carolina over the past three years. This exemption is narrowly defined so that diuron can only be used to control blue green algae and not as a general herbicide.

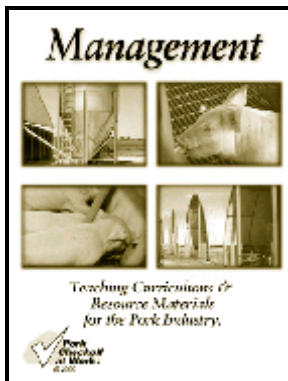
The University of Georgia Cooperative Extension Service began work on application for this exemption early in 2000. A survey of catfish farms indicated that over 1,000,000 pounds of channel catfish were off-flavor and non-marketable in the Jefferson County area. Of these off-flavor cases, about 50% were associated with the blue-green algae, *Oscillatoria chalybea* (now called *Oscillatoria perornata*). An application for emergency exemption use of diuron in Georgia was filed with the Georgia Department of Agriculture in August 2000. By December, the Georgia Department of Agriculture had forwarded an official application to U.S. EPA and the exemption was approved December 26.

Diuron effectively controls *Oscillatoria perornata* at very small concentrations in pond water. Less than 0.009 ppm diuron is needed to control this blue-green algae. Since *O. perornata* is known to produce the off-flavor chemical methyl-isoborneo, control of off-flavor in catfish can be obtained by proper application of diuron. However, higher concentrations of diuron will kill other algae and may cause undesirable results that include dissolved oxygen depletion. Also, diuron will control off-flavor only under certain conditions when the target blue-green algal species is present and water temperatures are above 60 °F. Unlike copper sulfate, diuron can be utilized safely in pond waters where the alkalinity is below 50 ppm.

Please contact your county agent for information about this emergency exemption. A current label for diuron use in catfish ponds must be obtained before the two products, Diuron (Drexel Chemical Co.) or Nautilus Aquatic Herbicide (Griffin L.L.C.) can be used. The amount of diuron that can be utilized per treatment is 0.5 ounces per acre foot of pond water. Only nine diuron treatments can be applied to the same pond during a single year. Records must be kept that show the amount, location and date of each application of diuron.

# Distance Education Opportunities for Georgia Pork Producers

Rick Jones  
Professor and Extension Animal Scientist



Distance education (DE) or learning may be an especially logical approach for initial training and continuing education. Since the loss of the Premium Pork plant at Moultrie and the subsequent decline in the size of the Georgia Pork Industry, continuing education of producers has become more difficult. Due to economic and environmental regulatory pressures, the majority of smaller farms have gone out of business and the pork industry that is left is scattered across the state. The only pocket of concentration is near the Athens area with a dozen or so large farms.

Because the remaining farms are relatively scattered, it is very difficult to get a sizeable group of producers together for educational meetings. In today's business atmosphere it is more and more difficult to get owners, farm managers and their workers away from the farm to group meetings. This situation favors the distance education or learning

process which may be conducted at many sites over the state to reduce or even eliminate travel requirements for the students. Web-based DE is even more flexible with both the site and time of programming left to the discretion of the student.

Several years ago (1997), the Extension Advisory Committee of the National Pork Producers Council began an effort to develop education modules for pork producers that could be adapted for use as face-to-face type programs, correspondence type courses or web-based learning. Extension specialists from many states became involved in this effort sponsored by NPPC.

The first module was Farrowing Management which was piloted in spring 1999 as a WebCT course based at the University of Nebraska. The same basic educational materials were offered as a correspondence course and provided to extension specialists, county agents and vocational agriculture teachers in the form of a manual, slide sets and videos to use in traditional face-to-face meetings. An evaluation of the responses of students from all three approaches was used by the Advisory Committee to refine the process of developing subsequent modules. The web-based course has also been the subject of a graduate student's Ph.D program to analyse learner characteristics, instructional design and technological comfort.

Since that time, a parallel advisory committee composed of vocational agriculture educators has joined the effort. The annual Adult Swine Educator's Conference sponsored by NPPC has featured the educational modules as they are completed by the authors. At the September 2000 Conference, attendees who are mostly county agents and vo-ag teachers received CD's with educational materials used in the first four modules. This included the breeding, farrowing, SEW/nursery and grower-finisher modules. Materials on the CD include text files of the written material lessons and quizzes (PDF format), power point slide sets, mpeg movies and spreadsheets. Additional modules are in final stages of development on the national production and financial management standards and risk management.

This educational approach was first conceived to serve an audience of those individuals who actual work with the animals on a daily basis. It was not intended for experienced managers except as a good method of reviewing basic production principles. Now the plan is to provide additional levels of learning materials on these same topics to serve more advanced audiences.

The courses to be offered on the internet will be coordinated by NPPC staff and limited in size (250 people initially). The module authors or other swine specialists oversee the course and serve to answer student questions via e-mail. Courses are offered with a nominal fee and have an ample but finite time to for students to complete the course materials, the quizzes and the mandatory course evaluation. Students can work at their own pace anytime day or night that they have internet access. Upon completion, the student receives a certificate from NPPC. Notices of course offerings are posted at the NPPC web site ( <http://www.nppc.org> ) and are circulated to educators across the country.

January 11, 2001  
For Immediate Release

Contact: Jenny Felt  
Cindy Cunningham

## **Farrowing class to be offered on pork's website**

A self-study farrowing management course will again be available via the internet on pork's website for 10 weeks, from March 1 to May 10. Over 80% of previous course participants say that they acquired greater job skills and changed how they performed work in farrowing as a result of participating in the course.

The course is intended for people working in the farrowing area of any pork production operation. The course covers the basics in lactating sow and piglet care and is written primarily for the layperson. Although the course is designed for beginners, it has also served as a refresher course for people experienced in farrowing management.

The course is part of the Distance Learning Project, a checkoff-funded program implemented by the National Pork Producers Council (NPPC).

The farrowing management course has 10 lessons and a self-graded quiz with each lesson. Each lesson is designed to be completed in about 1 to 1-1/2 hours and can be taken at one's own pace. When all 10 quizzes and an online evaluation form are completed, a certificate will be received.

The farrowing management course, by being offered on the internet, is a more convenient continuing education option for ag professionals, according to Jenny Felt, NPPC Special Programs Manager. "Through this course, participants can learn or review basic farrowing management techniques anywhere they have internet access, such as their home or workplace," said Felt.

Each participant registered for the farrowing management course will be assigned a username and password that will provide access to the lessons for the farrowing curriculum. The registration fee is \$35 for the first registrant and \$25 for each additional registrant. Registration is due by February 26, 2001 and is limited to 250 students.

For more information on the course, visit pork's website at [www.nppc.org](http://www.nppc.org). Go to the "Especially for Producers" section and select the Distance Learning heading. You may also contact Jenny Felt, NPPC Special Programs Manager, at 515/223-2771.



## Dates To Remember

February 8-10	Georgia Cattleman's Association Convention, Athens
February 14	9 <sup>th</sup> Annual Focus on EPD's Bull Sale, Athens (Whitehall Beef Unit)
February 21-March 4	Georgia National Livestock Show & Rodeo, Perry
March 6	Beef Cattle Short Course, Tifton
March 7	Performance Tested Bull Sale, Tifton
April 6	Georgia Beef Expo, Perry
April 18	Mountain Beef Cattle Short Course, Blairsville
April 24	H.E.R.D. Sale - Irwinville
June 5	H.E.R.D. Sale - Calhoun