



AG NEWS

Division of Agricultural Sciences & Natural Resources
Oklahoma State University

Beaver County Extension Office * Courthouse * Box 339 * Beaver OK 73932 * (580)625-3464

Cow-Calf Conference III

Thursday, March 02, 2006

At the Beaver River Stockyards
Beaver, Oklahoma

February 2006

- 4:30 pm Cow Condition Scoring. Why is it Important?**
Live Animal Demonstration
Dr Glenn Selk, OSU Animal Reproduction Specialist
- 5:45 pm BVD PI Why should we be concerned?**
- 6:00 pm Registration, Chili Feed**
*Please call the Extension Office at (580)625-3464 by
Monday, February 27th*
- 6:30 pm Premise ID. How to do it & Why.**
Vickie Ernsting, Oklahoma NAIS Coordinator, ODA
Dr Mike Pruitt, Staff Veterinarian, ODA
- 7:15 pm Risk Management Options & Marketing Opportunities**
Tom Fanning, Manager Buffalo Feeders, Buffalo, OK

In order to understand what is needed to grow transplants, we must break the process down into three distinct phases.

Germination: Germination requires warm temperatures and usually the seed does not require light (lettuce is an exception). Therefore, we can place seeded containers in a warm place even if there isn't much light. For example, some people will choose the top of a refrigerator. A heating pad is even better because most seeds germinate best at a constant temperature of between 70 and 75 degrees. This can vary by species with some requiring higher temperatures and others lower. Also remember that this should be the temperature of the media; not the air. Media temperature can be 5 to 10 degrees cooler than air temperature due to evaporation causing cooling. Covering the containers with plastic can reduce evaporation (and temperature drop) so watering frequency is reduced. However, containers must be checked frequently so that newly germinated seed can be moved to a location where it received the light it needs.

Growth: Light and temperature must be controlled during this stage if we are to produce strong, stocky seedlings. Temperature should be lower than that used for germination with 60 to 70 degrees preferred. Light must also be adequate for good growth. The easiest way for most people to provide what is needed is to use florescent lights. A standard 2 bulb florescent fixture works well. Fixture must be supported in such a way that the height can be controlled so that the bulbs can be maintained 2-4 inches above the top of the plants. Incandescent bulbs do not work well because they produce too much heat to be placed as close to the plants as needed.

Hardening Off: Plants grown indoors need some time to acclimate to outside conditions of wind and full sun. Usually you need about a week to harden off a plant. Reducing watering and temperature is key to toughen up transplants. If possible, also move your transplants outside for a portion of each day. Start by placing the transplants in a shady, protected location and gradually move them into a more exposed, sunny location as the week progresses.

OSU FORAGE PRODUCTION MEETING

Thurs, Feb 9, 2006—12:00 noon—NW Electric Headquarters
2925 Williams Ave—Woodward

Nitrogen Needs of Wheat & Reducing Input Costs

- Using Legumes to Decrease Nitrogen Inputs
- Top-Dressing in February for Grain or Graze-Out, Will It Pay?
- Using N Rich Strips to Determine Nitrogen Needs
- Has the Dry Winter Hurt Our Grass Stands

How You Can Best Utilize Your Forage for Cattle Production

- Supplement Programs For Cow/Calf Operations on Native Grass
- Feeding Strategies to Stretch Your Grass Supply
- Alternative Feed Products That Can Be Used to Reduce Costs

Speakers:

Roger Gribble, OSU Ext Area Agronomy Spec, Enid
Britt Hicks, OSU Ext Area Livestock Spec, Goodwell

AVOIDING SPINDLY TRANSPLANTS

Gardeners often find it difficult to grow their own vegetable or flower transplants and frequently end up with spindly, weak plants that do not do well when placed outside. The two most common causes of spindly plants are low light and high temperatures after the plants have germinated. Unfortunately, these are the conditions commonly found on one of the most popular places to start seed; a windowsill. A windowsill doesn't provide enough light and temperatures are hard to control.

BEAVER COUNTY CONSERVATION DISTRICT ANNUAL TREE SALE

Wholesale Prices Now through March 15, 2006- Great trees for wind breaks in lots of 30 (potted) trees and 50 (bare rooted).

- **Trees:** Pines, Junipers, Spruce, Black Locust, Bur Oak, Cottonwood, Hackberry, Poplar & Elms
- **Shrubs:** Lilac, Sandhill Plum, Cherry

Much larger trees in 1, 2, 3, and 5 gallon pots:

- **Evergreens:** Pines, Junipers, Spruce
- **Deciduous trees in 5 gallon pots:** Ash, Cottonwood, Elm, Maple, Oak Pistache, Sycamore, Zelkova
- **Ornamental trees in 5 gallon pots:** Cherry, Crabapple, Pear, Plum, Redbud, & Wisteria
- **Fruit trees in 5 gallon pots:** Blackberry, Grape, Peach, Pear Plum, Apple, Nectarine, Apricot

For order forms and more information please call: Marilyn Newman Beaver Co. Con. Dist. 580-625-3813.

BULB LEAVES POKING THROUGH DUE TO WARM WEATHER

We are hearing reports of new growth from bulbs such as daffodils poking through the soil and causing concern for gardeners. This is a condition that occurs with some regularity when we have extended warm spells during our Kansas winters. Gardeners often want to know how to slow or stop this process so that their plants aren't damaged when cold weather returns. Unfortunately, there isn't much we can do.

However, though leaf tip burn is common, extensive damage is rare. In most cases doing nothing is the best course. An exception to this rule may occur when an extended warm spell is followed by a sharp drop in temperature. In such cases, it may be wise to throw mulch over the new growth just before the cold weather hits. This will provide some temperature buffering for the plants. The mulch should be removed as temperatures moderate.

HOUSEPLANTS LOSING LEAVES

Homeowners often become concerned about their houseplants at this time of year because they look unthrifty and may even shed leaves. Most of this is the plant responding to low light levels. Not only is the day length shorter during the winter but the angle of the sun means sunlight must travel through more atmosphere before it reaches us in the northern latitudes. Each of these factors means less light

energy reaches our houseplants. Houseplants respond to this stress by stopping growth and dropping leaves if necessary. So how can we tell if leaves are being dropped due to stress or due to other factors? Normally, stress is the culprit if leaves are dropped throughout the plant so a general thinning occurs.

The next question, then, is what do we do about it? Well, you can add supplemental lighting or just wait until longer days and higher light levels allow the plants to recover. Unfortunately, people are often not patient enough and decide the plant needs more fertilizer or water to perk it up. Remember the problem is low light; not a lack of fertilizer or water. Adding extra fertilizer or water won't help and may actually harm the plant. Everything needs to be balanced in the plant. If there is plenty of sunlight, the plant can use plenty of water and plenty of fertilizer. Under low light levels, the plant is unable to use much fertilizer and the nutrients just stay in the soil where they can build up and may eventually burn roots. Also, excess water can actually drown roots. Therefore, it is important to do a good job of watering and fertilizing during the winter. Only water when the soil is dry ½ inch deep in the pot. Also, reduce or eliminate fertilizing during the winter months. If the plant still looks thin in the spring, cut it back so that it can put out new, thicker growth. Also, knock the plant out of the pot and make sure it isn't root bound. If it is, move it up to a larger pot.

PASSIVE IMMUNE STATUS 24 HOURS POST-CALVING AND LONG-TERM HEALTH AND PERFORMANCE OF CALVES

Research conducted in the 1990's at the USDA experiment station at Clay Center, Nebraska monitored health events and growth performance in a population of beef calves. In particular, they studied associations of lifetime health and growth performance with passive immune status. Blood samples were collected at 24 hours after birth from 263 crossbreed calves to determine the amount of passive maternal immunity that had been obtained from colostrum. Colostrum is the first milk produced by the cow after calving. Colostrum is the sole source of disease protecting antibodies available to the newborn until the immune system begins to function fully. Growth performance and health events in this set of 263 calves were monitored from birth to weaning, and after weaning throughout the feedlot/finishing period. The lowest levels of passive immunity were observed among calves that were sick or died prior to weaning. **Calves with inadequate passive immunity (at one day of age) had a 5.4 times greater risk of death prior to weaning, 6.4 times greater risk of being sick during the first 28 days of life, and 3.2 times greater risk of being sick any time prior to weaning when com-**

pared to calves with *adequate* passive transfer. The risk of being sick in the feedlot was also three times greater for “*inadequate*” compared to “*adequate*” calves. Passive immune status was also associated with growth rates through its effects on calf health. Sickness during the first 28 days of life was associated with a 35 pound lower weaning weight. Respiratory disease in the feedlot resulted in a .09 pound lower average daily gain.

Thus, passive immunity obtained from colostrum (within the first day of life) was an important factor determining the health of calves both pre- and post-weaning, and indirectly influenced calf growth rate during the same periods. Management of young cows that allows for optimum production of first milk is vitally important to calf health and performance. Young cows that are in excellent body condition and have been properly immunized are most likely to produce the amount and quality of colostrum that gives their offspring an opportunity to get “*adequate*” passive immunity.

CATTLE MARKETS START 2006 WITH CONSIDERABLE OPTIMISM

The first couple of weeks of January are always a bit hard to read after the holiday disruptions of markets. However, 2005 certainly ended on a strong note across the board for cattle and beef markets. The New Year starts with a significant challenge to meet or top 2005 but there seems to be good prospects of doing so.

Cattle supply fundamentals will certainly continue to be supportive on average although the timing of production through the year could add some additional volatility. Although the annual cattle inventory report will be released January 27, it seems clear that the cow herd and calf crop grew some in 2005, likely around one percent. Moreover, the feedlot inventory at the end of 2005 was up around three percent from a year ago. However, most of the increased feedlot inventories at the end of 2005 were in lieu of winter stocker production in the southern plains which means that feeder supplies going into 2006 will likely show little or no increase from January 2005. Early placements into feedlot and continued heifer retention likely accounted for most of the increased calf crop. The question is really more of timing with the possibility that feedlot cattle are somewhat bunched up for the middle of 2006. However, a wide range of cattle weights were placed in late 2005 and winter weather will likely spread them out more before spring arrives. Many of the cattle currently on feed are lighter and younger than typical and this will require more days of feed and result in more variation in grading than would older cattle.

Beef production in the U.S. is expected to increase by 3 - 4 percent in 2006 with most of that increase due to more Ca-

nadian cattle processed south of the border. This will be partially offset by moderating imports, a trend that started in late 2005, and increased exports with the result that domestic beef consumption will only show a slight increase in 2006. Feeder cattle imports are likewise expected to show only a modest increase as additional Canadian feeder cattle imports will likely be offset by smaller Mexican cattle imports, a trend which also began in late 2005.

Beef demand will certainly hold the key to whether cattle and beef markets can meet or exceed 2005 on average. Beef demand appeared somewhat stronger in late 2005, buoyed by moderating energy prices. So far, winter weather has been less cold than earlier fears but weather will be a key factor on the demand side as well as the supply side in the next two months. Other demand factors that are uncertain but important for beef markets include the competing meat situation, general economic conditions and international trade. Pork and poultry are not expected to add significant additional pressure to domestic meat markets in the coming year. Perhaps the biggest unknown is how much and how fast will U.S. beef exports markets recover.

THE 3 STAGES OF PARTURITION

Animal scientists and veterinarians agree that there are three important stages of any cow's delivery of the baby calf. Understanding what to expect during the normal delivery can help to determine when a cow needs assistance due to a problem that occurs during calving.

Stage 1

The first stage of parturition is dilation of the cervix. The normal cervix is tightly closed right up until the cervical plug is completely dissolved. In stage 1 cervical dilation begins some 4 to 24 hours before the completion of parturition. During this time the “progesterone block” is no longer present and the uterine muscles are becoming more sensitive to all factors that increase the rate and strength of contractions. At the beginning, the contractile forces primarily influence the relaxation of the cervix but uterine muscular activity is still rather quiet. Stage 1 is likely to go completely unnoticed, but there may be some behavioral differences such as isolation or discomfort. At the end of stage one, there may be some noticeable behavioral changes such as elevation of the tail, switching of the tail and increased mucous discharge.

Stage 2

The second stage of parturition is defined as the delivery of the newborn. It begins with the entrance of the membranes and fetus into the pelvic canal and ends with the completed birth of the calf. So the second stage is the one in which we really are interested. This is where all the action is. Clinically, and from a practical aspect we would

define it as the appearance of membranes or water bag at the vulva. The traditional texts, fact sheets, magazines, and other publications that we read state that stage 2 in cattle lasts from 2 to 4 hours. Data from Oklahoma State University and the USDA experiment station at Miles City, Montana, would indicate that stage 2 is much shorter being approximately 60 minutes for heifers and 30 minutes for adult cows. In these studies, assistance was given if stage 2 progressed more than 2 hours after the appearance of water bag at the vulva. The interesting thing about the data was that heifers calving unassisted did so in an average time of about one hour after the initiation of stage two and adult cows did so within about 30 minutes of the initiation of stage two. Those that took longer needed assistance. These and other data would indicate that normal stage two of parturition should be redefined as approximately 1 hour for heifers and 30 minutes for cows. In heifers, not only is the pelvic opening smaller, but also the soft tissue has never been expanded. Older cows have had deliveries in previous years and birth should go quite rapidly unless there is some abnormality such as a very large calf, backwards calf, leg back or twins.

Stage 3

The third stage of parturition is the shedding of the placenta or fetal membranes. In cattle this normally occurs in less than 8-12 hours. The membranes are considered retained if after 12 hours they have not been shed. Years ago it was considered necessary to remove the membranes by manually "unbuttoning" the attachments. Research has shown that improper manual removal can be detrimental to uterine health and future conception rates. Administration of antibiotics usually will guard against infection and the placenta will slough out in 4-7 days. *Contact your veterinarian for the proper management of a retained placenta.*

KEEP WATERING NEWLY PLANTED TREES AND SHRUBS

It's critical for newly planted trees and shrubs to have adequate moisture in the root zone during late fall and throughout the winter. Plants that suffer from lack of water are more likely to die from winter desiccation. Keep the garden hose handy for giving plants a good drink during dry spells. Water early in the day when air temperatures are above freezing and when the ground is not frozen.

WOMEN MANAGING THE FARM

February 17-18, 2006 — Wichita, KS

Topics include: Animal ID and Biosecurity, Agritourism, Recordkeeping, Leasing, Financial Health, Farm Transition, Crop Insurance, USDA programs, hands-on programs on Innovative Production Agriculture, A Look at Conservation, Machinery and Fencing Basics, and Planning for Safe Farms. Registration Fee of \$50 includes conference materials, meals and refreshments and is due with registration by February 9th.

More information is available by contacting:
Kansas Rural Family Helpline at 1-866-327-6578 or
email: farmksu@humeck.ksu.edu
www.k-state.edu/farmksu/wmfconf.htm

This newsletter is published monthly by the Beaver County OSU Extension Office, PO Box 339, Courthouse, Beaver, OK 73932 (580) 625-3464, and is one way of communicating educational information. Reference to commercial products or trade names is made with the understanding that no discrimination is intended and no endorsement is implied.

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