



AGRICULTURAL NEWSLETTER

Oklahoma Cooperative Extension Service • Division of Agricultural Sciences and Natural Resources • Oklahoma State University

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Calving Season is Important Time, BSE Update

Over 75% of calf mortality occurs at birth and within the first two weeks of life. Delivery of a live calf has become a greater challenge with the use of larger beef breeds and cattle with larger birth weights. Adequate supervision at calving has a significant impact on reducing death loss. On most ranches, supervision of the first calf heifers will be best accomplished in daylight hours.

The easiest and most practical method of inhibiting nighttime calving is by feeding cows in the late evening (after 5pm). Studies indicate that under range conditions, feeding at dusk should cause 70-80% of cows to calve in the daytime hours. This is an excellent management idea for heifers.

When to Help

The next issue facing the rancher at calving time is the amount of time heifers or cows are allowed to be in labor before assistance is given. Traditional textbooks stated that "Stage 2" of labor lasted from 2 to 4 hours. "Stage 2" is defined as that portion of the birthing process from the first appearance of the water bag until the baby calf is delivered. Newer data from Oklahoma State University and the USDA station in Montana clearly show that Stage 2 is much shorter, lasting approximately 60 minutes in first calf heifers, and 30 minutes in mature cows. In these studies, heifers that were in stage 2 of labor much more than one hour or cows that were in stage 2 much more than 30 minutes definitely

needed assistance. *Rule of thumb.* If reasonable progress stops after the feet or water bag appear, assistance maybe indicated. Examination for malpresentation is not detrimental if done in a quiet, sanitary manner. If you cannot safely deliver the calf, it is time to call the veterinarian.

Newborn Care

After delivery, primary attention is directed toward establishing respiration. Mucus and fetal fluids should be expressed from the nose and mouth by external pressure of the thumbs along the bridges of the nose and the flat fingers underneath the jaws, sliding from the level of the eyes toward the muzzle. The most effective way to clear the airway is by suction. Brisk rubbing of the skin or tickling inside the nostril with a piece of straw also has a favorable effect.

Passive immunity is the passing of antibodies from dam to calf via the colostrum (first milk after calving). Maximum absorption of antibodies occurs between 2-6 hours of age and is virtually over at 24 hours. Early nursing is vital. Proper transfer of passive immunity enhances disease resistance throughout the calf's life.

Greg Highfill

OCES Area Extension Livestock Specialist

How Much Colostrum to Feed the Newborn Calf

Dr. Glenn Selk, OSU Extension
Reproduction Specialist

Calves born after a long difficult delivery are at a high risk of failing to receive adequate passive immunity by natural suckling because of greatly decreased antibody absorption. Calves that are born to a prolonged stage II of parturition very often suffer from severe respiratory acidosis.

Stage II is defined as the time from the first appearance of the water bag until a live calf is completely expelled onto the ground. Calves weakened by a prolonged delivery often are sluggish and do not get up and seek the teats rapidly. Early timing of colostrum consumption is important because the intestine undergoes changes known as "intestinal closure" which limits the absorptive capability of the gut after the first 6 to 12 hours of life.

Plus, acidotic calves are less efficient at absorbing colostral antibodies even if they are artificially fed colostrum. Therefore effort should be made to provide weak newborn calves with the best source of colostrum available via bottle suckling or tube feeding.

The amount of antibody (in colostrum) ingested is also a major determinant of final blood antibody concentration. A practical "rule-of-thumb" is to feed 5 to 6% of the calf's body weight within the first 6 hours and repeat the feeding when the calf is about 12 hours old. For an 80 pound calf, this will equate to approximately 2 quarts of colostrum per feeding. Read more about these important topics in OSU Fact Sheet F-3358, Disease Protection for Baby Calves. This is available at the Blaine County OSU Extension office.

Special Election Being Held February 24, 2004



Residents will be voting on a 5% Lodging Tax proposition on Tuesday, February 24th. **All of the 5% lodging tax** will go to

Blaine County for Maintenance and Operations of the Blaine County Fairgrounds.

In person absentee voting will be held Friday & Monday, February 20 & 23, respectively, from 8 a.m. – 6 p.m. Voters can also vote at their regular precincts on Tuesday, February 24th from 7 a.m. to 7 p.m.

Control Peach and Nectarine Leaf Curl Now!

It is common to get calls in early summer by homeowners wanting to know what is wrong with their peach or nectarine tree. Infected leaves pucker, become deformed, and turn yellow or reddish-brown. Unfortunately, by that time, when symptoms are most evident, it is too late to spray anything. Leaf Curl is the culprit and is one of the most commonly encountered diseases in unsprayed orchards and home yards during cold, wet springs. Diseased leaves eventually wither and fall from the trees. Although new leaves emerge from dormant buds, their growth requirements reduce yield and may weaken the trees.

To prevent leaf curl disease, spray peaches and nectarines with a fungicide before bud swell (Fact Sheet F-7319). Apply when the trees are dormant and temperatures are above 40 degrees F. Bordeaux mixtures, copper flowable fungicides, Kocide, and lime-sulfur sprays are commonly used for control of leaf curl. For more information, contact the Blaine County OSU Extension Service.

It's Time For –

Your Yard

If you haven't taken a soil test within the last three years, this is a good month to analyze yard soils. A soil test will tell you the soil pH and content of nitrogen, phosphorus, and potassium. To take a soil test, pull a sample from 10 or more locations across the area you want to test. From each location, collect soil from the surface down to the 6-inch level. Mix all samples collected in a clean, plastic bucket and take one pint of the mixed soil to the Blaine County OSU Cooperative Extension office. There is a \$10 fee for the analysis. Collect a separate set of samples for different areas, such as the lawn, vegetable garden, or flower bed. The test will take about two weeks. You will receive a written report and fertilizer recommendations. This will help make sure you only buy the nutrients your plants really need.

Your Lawn

One of the more effective ways to control winter annual weeds in Bermuda is to apply a winter application of glyphosate (*Roundup*®, *Killzall*®, or *Kleeraway*®). Applying glyphosate in late early February will knock out winter weeds, so they won't be around to flower in the spring.

Apply glyphosate when daytime temperatures will be at least 50 degrees F. Add a 2,4-D product at the label rate to glyphosate to improve control of winter broadleaf weeds. To see where you have sprayed, add a spray dye to the tank. Maintain a steady pace as you spray and avoid applying too much spray in one location.

Glyphosate kills virtually every green plant it comes in contact with, including green Bermuda. Since Bermuda is dormant in January and glyphosate is only absorbed by green tissue, it has no effect on the Bermuda. **Do not apply glyphosate over tall fescue or where Bermudagrass is green.** Avoid drift onto nearby evergreen plants.

Safe and Effective Insect Control

Many insects can over winter on trees and shrubs by hiding in the cracks and crevices of bark. Most insecticides are formulated to control insects when they are in an active stage. However, dormant oils are used during the dormant period of deciduous plants, winter and early spring, when most insects are also in a dormant stage.

Dormant oils control many insects including mites, galls, scale, overwintering aphids, etc., as well as the eggs of many species. Insects are killed by suffocation, a mechanical form of control. Applications should be made when temperatures are above 40 degrees F. Care should be given not to spray the oils on evergreen plants or on deciduous plants that have new foliage as injury may occur. Dormant oils are phytotoxic to all green plant parts. Summer oils are more diluted and refined and can be used during the growing season to control insects. Be sure to always read and follow label directions.

Wheat Graze or Harvest for Grain?

An educational meeting at the Blaine County Fairgrounds, Foley Building, will be held Friday, February 13th, from 9:30 a.m. – 11:30 a.m.
Topic: Wheat: Grain or Grazing Options

Speakers

Roger Gribble
NW District Area Extension Agronomist

J. C. Hobbs
NW District Area Extension Ag. Economist
Specialist

Greg Highfill
NW District Area Extension Livestock Specialist.

Meeting is FREE and open to the public. For more information, contact the Extension Office at 623-5195.

Fresh Spring Vegetables

The days for fresh vegetables to be picked right from the garden are soon coming. The cold winter temperatures will soon be leaving allowing us to return to the garden and begin growing our favorite vegetables again. By February 15 many cool season vegetables like cabbage, carrots, lettuce, peas and potatoes can be planted (see chart below). The exact time to plant will vary slightly depending on the winter and where you live in the state. The south/southwest region could be as much as two weeks ahead of the northwest and panhandle areas of the state. The thing to remember though is that soil temperatures at planting depth should be at least 40 degrees F.

The east with which one is able to grow plants is greatly influenced by characteristics of the soil. Modifying or improving the soil prior to and during the gardening season is important. Various fertilizer elements are necessary for plant growth and many can be easily applied. However, other aspects of soil improvement may not be as easily and readily accomplished. In a very sandy soil, the incorporation of organic matter would reduce rapid drying of the soil and improve nutrient availability. In a very heavy clay soil, organic matter would improve soil aeration, water absorption, and drainage.

Soil should absorb water readily, not form a crust upon drying, and drain sufficiently so that it does not become waterlogged. A porous soil contains more air, which is necessary for vigorous root growth. As organic matter decomposes, soil texture improves and nutrient availability should increase. More information on garden soil improvement is given in fact sheet F-6007, Improving Garden Soil Fertility.

The soil must contain a supply of water and available fertilizer nutrients. Soils that produced a vegetable crop the previous year will be more easily managed than those with established grasses and weeds. Additional fertilizers may be beneficial to stimulate growth and production. These might be incorporated in the soil prior to planting or applied on the soil surface later.

Garden Planting Guide for Cool Season Vegetables

<u>Vegetable</u>	<u>Time to Plant*</u>	<u>Days to Harvest</u>	<u>Method of Planting</u>
Asparagus	Fall or Spring	-	Crowns
Beet	March	50-70	Seed
Broccoli	March	80-90	Plants
Cabbage	Feb. 15 to March 10	60-90	Plants
Carrot	Feb. 15 to March 10	70-90	Seed
Cauliflower	Feb. 15 to March 10	70-90	Plants
Chard, Swiss	Feb. 15 to March 10	40-60	Seed
Kohlrabi	Feb. 15 to March 10	50-70	Seed
Lettuce, Head	Feb. 15 to March 10	60-90	Seed or Plant
Lettuce, Leaf	Feb. 15 to March 10	40-70	Seed or Plant
Onion	Feb. 15 to March 10	60-120	Sets
Onion	Feb. 15 to March 10	60-120	Plants
Peas, green	Feb. 15 to March 10	60-90	Seed
Potato, Irish	Feb. 15 to March 10	90-120	Tuber pieces 2-3 oz.
Radish	March 1 to April 15	25-40	Seed
Rhubarb	Fall or Spring	-	Crowns
Spinach	Feb. 15 to March 10	50-70	Seed
Turnip	Feb. 15 to March 10	50-60	Seed

*These dates indicate planting times from southeast to northwest Oklahoma. Specific climate and weather may influence planting dates. For Cool Season Vegetables, the soil temperature at the depth where the seeds are planted should be at least 40°F.

Prune Fruit Trees

Peach and other fruit trees need to be pruned each year to control their load. Major pruning cuts are best done during the dormant season after the worst of the winter is over. However, some pruning later in the spring is not injurious to the tree. Especially with front sensitive trees such as peach and plum pruning can be

delayed until after bloom in the spring. This allows the amount of wood removed to be adjusted relative to the fruit load. Late freeze has reduced the load the pruning severity can be reduced. If the fruit load is heavy, more pruning may be in order. Fact Sheet 6228 – “Annual Pruning of Fruit Trees”, discusses pruning in detail.