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Joe Benton
Ext Educator, Ag & CED

Hay & Forage Crops

Ag producers will very soon start making preparations for this years' hay and forage crop. Fertilizer will be applied to Bermuda grass, hopefully according to a soil test.

A few things to remember about fertilizer usage:

1. Nitrogen, phosphorus and potassium are all used in fairly large amounts by forages. Phosphorus, potassium and nitrogen, if needed, must all be applied to achieve maximum production. Don't get into the habit of just applying nitrogen every year. Phosphorus and potassium needs must be met before nitrogen can be fully utilized.

2. Fifty units or actual pounds of nitrogen are needed per ton of expected forage. If three tons per acre of Bermuda yield is expected, it would take approximately 150 pounds of actual nitrogen or 326 pounds of 46-0-0 to achieve this goal.

3. Only fertilize for the tonage needed, if you don't plan to sell hay. Raise only what you need.

4. Fertilize your best acres only to get the most bang for your buck, if

budget is an issue.

5. In droughty years, well fertilized pastures are 40-60% more efficient with the moisture it receives than the unfertilized areas.

6. Native pasture does not respond well to fertilization.

7. Fertilize Bermuda at the start of rapid growth.

Weed control is another important part of raising forage and hay.

When designing a weed control program, there is important knowledge to keep in mind.

Weeds are a symptom, not a problem.

The increase of weed populations in a pasture is usually a product of lack of competition from forage grass. Drought, close grazing and low soil fertility causes weakened forage grasses which allow weeds the competitive advantage, resulting in their increased population.

Most weeds treated with herbicides should be sprayed when they are small (1 to 4 inches) and actively growing.

- a) 3/4 lb. of 2,4-D will control most of the annual and some of the perennial weeds when they are treated in the 1 to 4 inch stage of growth. As they become larger, the addition of Dicamba, Picloram, Metsulfuron and Trisulfuron is needed to give the kind of control desired. It will, also, sometimes double the cost of the herbicide needed.

- b) Weeds should only be treated when the air temperature is above 60 degrees and the plants have had enough rainfall to be growing rapidly. A cold and/or drought stricken weed will not absorb enough herbicide to kill it.

Advantages for products other than 2,4-D amine

- a) Weeds too large, as weeds grow in height and mature they become more difficult and costly to control requiring more potent chemicals.

- b) When weeds are stressed by drought, they are not actively growing and will not take up the herbicide as readily.

- c) Some weed species like Horsenettle and ironweed are by their nature harder

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to control than other pasture weeds.

d) Sometimes other chemicals and combinations of chemicals can provide the same control at a comparable price.

Remember, good timing can save money!

This savings will allow you the opportunity to spend more on fertility and allow the forage grasses to take advantage of the absence of

of the weeds.

Always read and follow all label directions before applying herbicides in a weed control program.

Three Keys to Planning the Spring Breeding Season

Three key management concepts can help commercial cow calf operations improve the productivity of their cow herds. However, planning and preparation must take place well in advance of the spring breeding season. The key areas to consider include: 1) assess the bull power; 2) immunize the replacement heifers properly; and 3) breed the replacement heifers ahead of the cows.

Lets examine each one briefly in more detail.

Bull power:

Do you have enough bulls to meet the needs of the cow herd? Very young, 12 month to 15 month old bulls should be placed with 10 – 15 females. Two year-old bulls can be placed with 18 – 24 females and experienced bulls should be able to breed 25 - 30 females or even a few more if in small breeding pastures. Have the bulls recently passed a breeding soundness examination? Arrange with your veterinarian a time to check the bulls for breeding soundness. Research has indicated that one of every six bulls will be questionable or unsatisfactory upon examination. It is important to find sub-fertile bulls in

plenty of time to allow for the replacement bulls to be located and purchased for the upcoming breeding season. New bulls should be brought to their new environment about a month prior to breeding. This gives them an opportunity to become adapted to their new environment before the critical start of a breeding season.

Immunize the heifers:

Replacement heifers should be immunized for respiratory diseases such as IBR and BVD. If you choose to give the heifers a modified live vaccine for long-lasting protection against these viruses, heifers should receive this vaccination at least one month before the start of the breeding season. This would also be good time to include other reproductive disease protection that may be recommended by your veterinarian. Examples of other diseases that should be considered include leptospirosis and campylobacter (sometimes called vibriosis).

Breed the heifers ahead of the mature cows:

Yearling replacement heifers should be mated with bulls or bred artificially about 3 weeks to a month before the start of the

breeding season for the mature cows. Breeding the heifers early is important for two reasons. Two-year old first calf cows normally take longer to return to heat cycles after calving than do older cows. Therefore if they calve early then when they rebreed they are in synchrony with the rest of the cows in the herd as they deliver their second calf. In addition, the manager can watch the heifers more closely early in the calving season and give them additional attention as they are the females most likely to need assistance at calving time.

Naturally, there are other health, nutritional, and management chores that must be attended to during the time prior to breeding, but using these three concepts would aid greatly in improving the productivity of many Oklahoma commercial cow calf herds.



Pott. Co. Jr. Livestock Show Scheduled

The Pottawatomie County Junior Livestock Show is scheduled for March 4-7. The schedule is as follows:

March 4	Goat & Sheep Show	3:00 p.m.
March 5	Beef Show	11:00 a.m.
March 6	Swine Show	8:30 a.m.
March 7	Premium Sale	7:00 a.m.

Heart of Oklahoma Beef Cattle Conference Scheduled

The Heart of Oklahoma Beef Cattle Conference is scheduled for **Saturday, March 22nd**. Enclosed you will find a flyer and registration form. Please R.S.V.P. by the March 17th date for the cost of \$8.00 after that date registration will go up to \$12.00. We look forward to seeing you on March 22nd. The starting time for the conference is set for 9:20 a.m.

Shawnee Home & Garden Show

The Shawnee Home & Garden Show will be March 8 & 9 at the Heart of Oklahoma Exposition Center. A trade show and hourly educational seminars will be available. You can obtain tickets from local businesses and at the door.

Save these dates and join us at the Home & Garden Show.

“Gardening: Oklahoma Style” Continues

The final two sessions of the series, “Gardening: Oklahoma Style” are set for Monday, March 10 and the final session is set for March 31. Both sessions will be held at the OSU Extension Center, 14001 Acme Road in Shawnee and will begin at 6:30 p.m.

The next segment scheduled on March 10 will cover “Growing Annuals & Perennials in Oklahoma.” This segment will be lead by David Hillock, Extension Consumer Horticulture Specialist, Oklahoma State University.

The final session on March 31 will discuss “Turf Grass Management” covering all aspects of your lawn. I will be presenting this session and there will be time for any questions that you might have.

These classes will be free and open to all interested. I hope to see more of you as we wind down our series, “Gardening: Oklahoma Style.”

Cattle Producers Plan Spring Meeting

The next Ag Producers meeting sponsored by the Pottawatomie County Extension Office and the Cattle Producers’ Association will be held on **April 17**, beginning at **6:30 p.m.** The meeting will be held at the **Tecumseh Ag-Ed Building** on the campus of Tecumseh High School located on north 13th Street off Highway 9.

The topic will be pasture management. With the high cost of nitrogen, many producers are looking at how to best meet nutrient needs. Chris Rice, Agronomy Specialist, will look at the option of using chicken litter. He will look at how to get the most bang from your commercial fertilizer usage. He will also discuss what weed control options you might have and how that can affect grass growth.

Chisholm Trail Farm Credit of Shawnee will sponsor the meal that evening. Please R.S.V.P. by **April 11th** by calling the OSU Extension Center, 273-7683.

See you on April 17th!

MANAGE FOR A 60 DAY BREEDING SEASON

A well managed beef cow/calf herd should in most instances put in practice a 60 day breeding and calving season. For herds that have a much wider breeding and calving season than this, it may be necessary to reduce it gradually over two or three years to get it down to 60 days.

Why a 60 day season? Assuming that calves are to be weaned and perhaps marketed at a single date on the calendar, for every 30 days later a cow will calve, it will cost about 60 pounds of weaning weight. If a cow gets bred one heat cycle later than would be most desirable, then cost is 40 pounds in weaning weight.

The nice thing about a 60 day breeding season is that when bulls are turned in at the start of the breeding season, every cow should be cycling and is subject to being bred on the first or certainly the second heat cycle. To make a 60 day breeding season work cows need to be in average or better condition. On a condition score scale of 1 to 9, the thinnest cows should be 4, the cows in better condition 7, with most cows being in a condition score of 5 or 6. If cows calve in the right condition enough nutrition must be furnished to keep that cow in average condition until breeding season begins.

Another consideration is adequate bull power. In a 60 day season, two-year-old and older bulls should be expected to breed 30 to 35 cows and an ideal conditions up to 40 cows. Yearling bulls can handle 15-20 cows. If conditions are severe 15 and if conditions are good maybe as many of 25 cows. Don't expect too much from a yearling bull.

Be sure that yearling bulls and older bulls are not put together in a multi-bull breeding pasture because the dominance of the older bull will dictate that he will do most of the breeding. Herd health is another consideration. Cows should be vaccinated when open prior to the breeding season for IBR, PI3, BVD, five strains of Lepto and Vibriosis. Consult your veterinarian for vaccinations that should be administered in this area.

In a cow herd with good management that are currently using a 80 or 90 day breeding season, a 60 day breeding season is very attainable. First calf heifers probably should be cut a little closer and given a 45 day breeding season. Heifers that calve early the first time are much easier to keep on schedule in subsequent years.

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