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Forage News

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## Forage News [1999-01]

Department of Plant and Soil Sciences, University of Kentucky

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## FORAGE NEWS

*Garry D. Lacefield and Jimmy C. Henning, Extension Forage Specialists • Christi Forsythe, Secretary*

### Forages at KCA

“Getting More Value from Forages Legumes” is the theme for the Forage Symposium at KCA. The conference will be held at the Executive West in Louisville beginning at 9:30 on January 8. A proceedings will be available at the meeting. Program and speakers include:

- 9:30 Role & Importance of Forage Legumes - *Dr. Garry Lacefield*  
10:00 Establishing Legumes - *Dr. Jimmy Henning*  
10:30 BLOAT: What is it? What causes it? - *Dr. Patty Scharko*  
11:00 Getting the Most out of Your Legume Based Pasture - *Dr. Roy Burris*

### KFGC Board Sets Vision and Mission

The KFGC board held its first ever retreat December 14-15 at the Rough River Dam State Resort Park. They met for the purpose of determining the vision and mission of the organization, and for evaluation of present and future programs.

**Vision Statement:** To be the leader and voice of profitable, economical, and environmentally sound forage agriculture in Kentucky.

**Mission Statement:** The KFGC mission is to promote the use of forages as profitable, economical and environmentally sound agriculture through education, communication and professional development of producers, scientists, educators and commercial representatives and by/through communication with policy makers and consumers in Kentucky.

The board identified the following as priority projects for the next 12 months:

1. Revamp Annual Meeting Format, Location, etc.
2. Plan and possible expand the nature of present field days.
3. Target County Beef Meetings for Member Recruitment.
4. Get the Educational Booth to Major Commodity Meetings and Events.
5. Make Radio Public Service Announcements.
6. Write Articles with KFGC Emphasis.
7. Pursue Grants to Pursue Current Activities
8. Coordinate Educational Programs with Other Allied Agencies and Organizations.
9. Expanding Incentives for Coupon Book.

### 1999 AFGC National Hay Show - Rules and Procedures

1. Entrants must be an American Forage and Grassland Council (AFGC) or Society for Range Management (SRM) direct member or affiliate member.
2. Entrants may enter one (1) sample per class. Entrants may enter any or all classes.
3. Sample must be grown by exhibitor.
4. Hay samples must have been baled or stacked by

conventional haying equipment. Samples resulting from special handling such as hand harvesting will be disqualified. Judges' decision will be final.

5. Hay samples should include: 1) approximately one-half pound core sample and b) approximately four (4) pound bale cross-section of a bale (8"x14"x18", string tied for handling. Package samples from large bales or stacks in approximately the same size and/or weight and string tie.
6. Label each entry with the exhibitor's name, full address, type of hay and hay show class to be entered. An entry registered in the wrong class will be considered the exhibitor's error and may be reclassified by the judges.
7. Tie, wrap and label each entry separately to facilitate handling. Do not wrap entries in air tight bags that may cause sweating, mildew, and odors. If plastic bags are used for wrapping, make several small holes in the bag to allow the sample to breathe.
8. Classes (Grass class sample not to exceed 10% legume and legume sample not to exceed 10% grass.):
  - a) Tropical or semitropical perennial grasses
  - b) Tropical or semitropical annual grasses
  - c) Temperate perennial grasses
  - d) Temperate annual grasses
  - e) First cutting alfalfa, established stand
  - f) First cutting alfalfa, new seeding stand
  - g) Second or later cutting alfalfa
  - h) Other legumes
  - i) Legume-grass mixtures, 50/50 is ideal
9. Judging will be based on NIRS Testing, providing scores for:

Relative Feed Value	60%
Physical Appearance	25%
Crude Protein	15%
TOTAL SCORE	100%
10. Samples will be accepted until **January 15, 1999**. Ship samples to: **Dennis Fitzke, America's Alfalfa, 2622 S. 100 Street, Omaha, Nebraska 68124.**
11. Awards will be presented to the top three (3) entries in each class. Up to seven (7) "Champions of Show" will be awarded.

(SOURCE: *The Forage Leader*. Winter 98, Vol 3, #4.)

### Forage: Quality Emphasis

Efficient livestock producers must produce high forage yields, but additional emphasis must be placed on quality. Producing high quality forage requires attention to details from pre-establishment to post-harvest. It is not necessary to understand how forage quality is measured in a laboratory, but some understanding of how forage quality affects animal performance is important to efficient livestock production. We need to know the quality of feed available either as pasture, hay or silage and the nutritional needs of the animals we are feeding. Knowing this we

can match feed based on quality to animal based on requirements. We need to realize the impact plant species and stage of maturity have on forage quality and animal performance. It is the total quantity of available nutrients in a given amount of forage, and not the total quantity of forage, that is of primary importance in obtaining good animal performance.

### Comparing Alfalfa, Red Clover, and Annual Lespedeza for Frost Seeding Into Tall Fescue

With the advent of the grazing tolerant alfalfas, I have had many questions relative to alfalfa and frost seeding. Basically, it would be super if we could broadcast alfalfa into closely grazed sods and expect to get a stand like we do with red or white/ladino clover. Traditional extension 'wisdom' told me that frost seeding alfalfa was not a viable option. However, when you look in the available literature, there is not very much information to address the topic.

As a result, Beth Prewitt (then a UK County Extension Agent for Agriculture and now the UK Director of student recruitment) conducted some research on legume establishment at UK's Eden Shale Research Farm in Owen County to compare the relative abilities of alfalfa, red clover, annual lespedeza, and a red clover-annual lespedeza mix to become established in a solid fescue sod when seeded using the 'frost seeding' method. In this two year study, alfalfa, red clover, annual lespedeza, and a mixture of red clover and annual lespedeza were broadcast onto a tall fescue sod in late winter to determine which was the most effective renovation treatment. The first cutting of grass was harvested and discarded. The regrowth was harvested, weighed, and analyzed for percent legume, percent whole plot protein, and percent grass protein.

What Beth found was that frost seeding was effective for red clover, white clover and annual lespedeza but not for alfalfa (Table 1). Let's take a look at the numbers.

	Annual Production After First Harvest	Percent Legume in Regrowth Harvests	Whole Plot Protein	Grass CP Protein
	Lb/A	Percent	Percent	Percent
Alfalfa	3833	8	11	10
Red Clover	5198	48	17	13
Annual Lespedeza	6444	44	12	11
Red Clover + Annual Lespedeza	6831	51	15	12
Fescue Control	3205	0	10	10

Alfalfa was least effective in getting established. The alfalfa treatment added only 628 lb/A extra yield compare to the non-renovated tall fescue control while red clover, annual lespedeza, and the clover-lespedeza mixture added 1993, 3239, and 3626 lb/A, respectively. The regrowth harvest in the alfalfa plots only contained 8% legume compared to 48, 44, and 51% for red clover, annual lespedeza, and the clover-lespedeza mixture, respectively. Red clover was the most effective legume in raising whole plot crude protein.

### Disc and Sickle Mower-Conditioners

### Affect on Stand Persistence and Yield

Since 1990, the sale of disc mower-conditioners has grown rapidly, and in 1997, disc mower sales surpassed sickle mowers. Despite these trends, there are still many producers who resist purchasing a disc mower because they feel that this mower is too aggressive on alfalfa plants. These producers are concerned about stand persistence and yield reductions. With this concern in mind, a study was initiated at the Arlington Research Station to evaluate the yield and persistence of alfalfa cut with a disc mower conditioner (DMC) compared to alfalfa cut with a sickle mower conditioner (SMC).

Results and Summary: Plant stands were equal between fields cut with the DMC and SMC. Plant stands averaged 6.2 plants/sq.ft. for both treatments. Similarly, yields were equivalent between DMC and SMC machines averaging 1.49 and 1.47 t DM/a for DMC and SMC, respectively.

Repair parts costs were lower for the disc than for the sickle bar mower, averaging \$250 and \$800, respectively. Research Station mechanics also found that routine repairs could be performed more quickly on the DMC. This combination resulted in less down time for the DMC compared to the SMC.

Research Station equipment operators found that they could cut at approximately twice the ground speed with the DMC compared to the SMC. They also found that they could cut at least two hours earlier in the morning when there was a heavy dew. These advantages with the DMC increased the cutting rate and window of opportunity for cutting alfalfa.

Operators also found that they had no problem with a DMC in grassy fields, and sudan-grass. SMC machines often plugged under these conditions. In lower yielding alfalfa fields, they found that they improved the cut by lowering tractor RPM while maintaining the same ground speed. Replacing the conventional knives with high lift knives also helped improve cutting performance in "lighter" alfalfa.

Based on this study, there doesn't appear to be any more stand reduction or yield losses for DMC compared to SMC. Research Station staff found a significant reduction in repair cost, increased cutting rate, the ability to cut earlier in the morning, and less plugging with the DMC machine. The disadvantages of DMC are that they cost 25 to 50% more than SMC and require nearly twice the power per unit of cutting width. Despite these disadvantages, sales figures clearly indicate that producer find the advantages outweigh the disadvantages in helping them cut and harvest their forage in a more timely manner. (SOURCE: Dwight Mueller, Dan Undersander and Darwin Frye, Univ. of Wisconsin)

### UPCOMING EVENTS

- JAN 8-9 Kentucky Cattlemen's Convention, Louisville
- FEB 21-26 AFGC/SRM Conference, Omaha, NE
- MAR 4 19<sup>th</sup> KY Alfalfa Conference, Cave City
- APR 28-30 Kentucky Grazing School, Eden Shale

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