

BEEF TIPS



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Department of Animal Sciences and Industry

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Upcoming Events

June 3-14

Beef Empire Days
Garden City

August 20-22

Beef Fest
Emporia

HARVESTING HAY AT PROPER MATURITY CAN REDUCE FEED COSTS

Cost-control strategies are an indispensable ally to the profit-minded beef producer. Focusing attention on feed costs is the most logical place to start because this line item represents the lion's share of a beef producer's single largest variable expense. How does one begin the intricate task of cutting feed costs without affecting productivity? First, one must recognize that when coupled with environmental variability, feed cost control represents a moving target that can only be bulls-eyed with appropriate planning and evaluation of the existing options. Reducing the dependency and use of harvested forages by increasing the length of time cattle are grazing pasture or crop residues is a logical place cost-conscious producers should focus attention. However, unpredictable precipitation patterns and the seasonality of range and pasture nutrient quality often necessitates the need to harvest and preserve some quantities of forage for hay for future needs.

Every spring/summer beef producers begin the mundane task of harvesting forages for hay without realizing the implications this production activity has upon reducing feed costs six months later during the livestock feeding season. Producers should recognize the positive aspects of harvesting hay at the proper stage of maturity on out-of-pocket supplement expenses. Attention to this detail will translate into significant supplemental cost savings during the feeding season. Table 1 lists the preferred growth stages/cutting dates of different forage crops for quality hay production

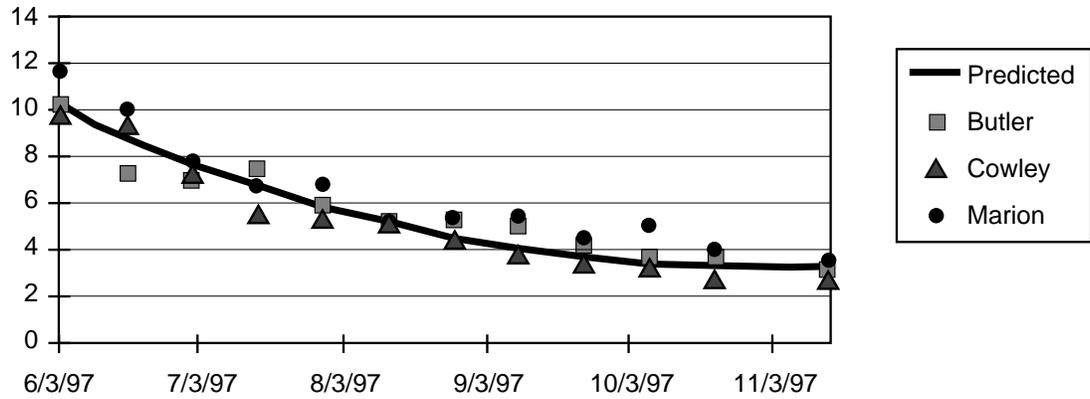
To illustrate the effect of harvesting at the proper stage of maturity on out-of-pocket supplement expense, a demonstration was conducted by county agents in three Kansas Flint Hills counties (Butler, Cowley and Marion) during the summer of 1997. Native grass hay meadows consisting of mixed species of perennial, warm-season grasses and forbs that are

Table 1. Preferred Growth Stages/Cutting Dates for Different Forage Crops for Hay

Crop	Remarks
Legumes	
Alfalfa Established	First cutting should be based on crown regrowth and subsequent cuttings on one-tenth bloom.
Newly Established	Delay first cut on new stands from one-tenth to one-half bloom or when crown regrowth reappears.
Grasses	
Native Hay	Early to mid-July—Southern Kansas; mid-July—Northern Kansas
Smooth Brome	Between early heading and full bloom (mid-May to June 1)
Tall Fescue	Cut no later than mid-May when it starts to show a few heads.
Cereals—Oats, Wheat, triticale	Harvest for hay anytime up to milk stage.

Producers should recognize the positive aspects of harvesting hay at the proper stage of maturity on out-of-pocket supplement expenses.

Figure 1. Crude Protein Content of Native Grass Hay^a



^aButler, Cowley and Marion County Agriculture Agents; Dave Kehler, Chris Baker and Steve Tonn, respectively.

dominant in the Flint Hills region were used in the study. Meadows at all three locations were sampled at two-week intervals during the growing season to determine the effect of harvest date on forage quality.

As anticipated, crude protein (CP) content declined with advancing maturity throughout the growing season (figure 1). The CP content of forage that cattle are grazing does influence the amount of supplemental CP needed to meet nutritional requirements. Therefore, beef cows or stockers that consume forages harvested beyond the optimum harvest date will require more supplemental CP to attain requirements during the winter season.

Table 2 illustrates the influence of harvest date and CP content of native hay on the

supplemental CP requirements for a 1,100 pound lactating beef cow. In this example, cows consuming 4.0 percent CP native grass hay would require an additional .88 pound supplemental CP at an added cost of \$.30/day, compared to cows consuming 8.0 percent CP hay. Represented another way, there is an approximate cost savings of \$4.43 per cow per percentage unit improvement in CP from 4.0 to 8.0 percent crude protein in the native grass hay. Based on the results of this study, producers should strive to harvest native hay meadows by mid-July in order to optimize forage quality, while allowing adequate time for range grasses to replenish root carbohydrate reserves prior to fall dormancy.

Table 2. Influence of Harvest Date and Crude Protein Content of Native Grass Hay on Supplemental Protein Cost¹

Harvest Date	%CP Content of Native Grass Hay	Pounds of Supplemental CP Required ²	Cost/day of Supplemental CP Source ³	Total Supplement Cost ⁴
7/1	8.0	.84	\$.27	\$15.93
7/15	7.0	1.06	.35	20.65
7/29	6.0	1.25	.42	24.78
8/26	5.0	1.50	.49	28.91
9/23	4.0	1.72	.57	33.63

¹ CP requirements for 1,100 lb mature, lactating beef cow of superior milk production (20 lb/day), 3-4 months postpartum = 2.6 lb CP/day.

² After accounting for CP content in native grass hay; assuming dry matter intake = 22 lb/day.

³ 38% commercial protein cube (\$250/ton).

⁴ For the postcalving period February 15 to April 15 (59 days).

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NOW IS THE TIME FOR . . .

June and July are months to let Mother Nature take her course. Native grasses are usually at peak production, therefore, little supplementation is needed, with the exception of some minerals.

Cowherd Nutrition

- Provide plenty of clean, fresh water.
- Provide free-choice mineral to correct any mineral deficiencies or imbalances.
- Monitor grazing conditions and rotate pastures if possible and/or practical.
- Consider early weaning if drought conditions develop and persist.
- Consider creep feeding if cost effective.

Herd Health

- Monitor and treat pink eye and foot rot cases.
- Provide fly control. Consider all options, price and efficiency will dictate the best option(s) to use.
- Avoid handling and transporting cattle during the hottest part of the day—reduce heat stress.
- Vaccinate replacement heifers for Brucellosis if within proper age range (4 to 10 months).
- Continue anaplasmosis control program (consult local veterinarian).
- Consider to deworm intensively grazed cows.

Forage/Pasture Management

- Check and maintain summer water supplies.
- Place mineral feeders strategically to enhance grazing distribution.
- Check water gaps after possible wash outs.

CHOOSING INSECTICIDES

Selecting an insecticide to control lice, flies, or other pests can be confusing. Perhaps product “X” had not worked well so you want to choose a different one. Be careful. Especially among livestock insecticides many products with different names are identical. For example, all the following are pour-ons containing 1% permethrin, in the pyrethroid family.

Atroban DeLice Pour-On

Expar Pour-On

Ectiban DeLice Pour-On

Hard Hitter Pour-On

Anchor Permethrin Pour-On

Bioceutic Permethrin Pour-On

Back Side

Furthermore, five additional products are the same as these except they each include a synergist which has the effect of making them somewhat more active:

Atroban Synergized Pour-On

Expar Synergized Pour-On

Anchor Permethrin S Pour-On

Bioceutic Permethrin S Pour-On

Back Side Plus

Then there is Durasect, which is 1% permethrin in a water repellent carrier so it won't wash off the cattle in rain.

So, thirteen different pour-ons contain the same amount of the same active ingredient. Yet another four permethrin pour-on products are of greater concentration: Boss, 5%; Brute, 10%; Permethrin CD, 10%; and Permethrin CDS, 7.4% (+7.4% synergist).

Reproductive Management

- If using artificial insemination (AI), do not expect all females to conceive. A common practice is to breed twice with AI then turn out clean up bulls for the balance of a 65-day breeding season. A 42-day AI season with estrus synchronization at the front end gives most females three chances to conceive AI.
- Watch bulls for libido, mounting and breeding function.
- Record cow breeding dates to determine calving dates.
- If herd is divided into small groups, rotate bulls during the breeding season.
- By imposing reproductive pressure (45-day breeding season) on yearling heifers, no late calving 2-year-olds will result. This will increase lifetime productivity and profits.

General Management

- Good fences and good brands make good neighbors (Thanks to Dick Poovey, Paxico, for the input).
- Check equipment (sprayers, dust bags, oilers, haying equipment) and repair or replace as needed. Have spare parts on hand, down time can make a difference in hay quality.

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And two other pyrethroid chemicals are formulated as pour-ons: cyfluthrin, as Cylence (1%); and lambda-cyhalothrin, as Saber Pour-On (1%).

Although only one percent in concentration, these latter two are much more active against most cattle pests than are the one-percent permethrin products. But, if a product does not work well and the reason may be insecticidal resistance, changing to a higher concentration of the same chemical or to a different chemical in the same family (in this case, pyrethroids) may merely increase the level of resistance in the pest population.

Other examples could be given. For example, diazinon (in the organophosphate family) is the active ingredient in several “different” ear tags: Patriot (40%), Cutter One (40%), Terminator (20%), Optimizer (21.4%), and is one of the active ingredients in Diaphos Rx (30% diazinon + 10% chlorpyrifos) and Warrior (same combination).

The take-home message is: compare and choose insecticides by the names of their active ingredients rather than strictly by their trade names. Also, find out which chemical family the active ingredient belongs to. A good source of that information can be found inside the back cover of K-State Research and Extension Publication C-671, Managing Insect Problems on Beef Cattle.

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Kansas Feedlot Performance and Feed Cost Summary*

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April 1998 Closeout Information**

Sex/No.	Final Weight	Avg. Days on Feed	Avg. Daily Gain	Feed/Gain (Dry Basis)	% Death Loss	Avg. Cost of Gain/Cwt.	Projected Cost of May-Placed Cattle
Steers: 22,132	1,198	161 (130-181)	2.92 (2.58-3.30)	6.75 (6.58-6.97)	1.68	\$60.19 (55.43-63.98)	\$54.08 (50.00-61.25)
Heifers: 18,972	1,075	171 (136-226)	2.56 (2.03-3.03)	7.06 (6.42-8.11)	2.03	\$64.69 (58.36-69.25)	\$56.27 (52.00-65.50)

Current Feed Inventory Costs: May 15 Avg. Prices	Range	No. Yards
Corn	\$ 2.68/bu	7
Ground Alfalfa Hay	\$91.27/ton	7

*Appreciation is expressed to these Kansas Feed-yards: Brookover Feed Yard, Brookover Ranch Feed Yards, Decatur County Feed Yard, Fairleigh Feed Yards, Kearny County Feeders, Pawnee Valley Feeders, and Supreme Cattle Feeders.

**Closeout figures are the means of individual feedyard monthly averages and include feed, yardage, processing, medication, death loss and usually sold FOB the feedlot with a 4% pencil shrink. Interest charges are not normally included.

BEEF TIPS



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