



## EXTENSION CENTRAL NEWS

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## When to Harvest First Cutting of Forages

Submitted by Richard Halopka, CCA  
Senior Outreach Specialist UW-Madison Division of Extension  
Clark County Crops & Soils

How can I determine when to harvest the first cutting of forages in Wisconsin?

Many farm managers will want to go by a calendar date, however if you look at 10 years of data from my former colleague Mike Rankin (table 1) that date could be prior to May 20th to after June 1st depending on weather conditions that spring and the type of forage in the field.

First, the livestock we are feeding will determine forage quality we need to harvest. If a dairy farm needs 170 relative feed value (RFV) coming out of storage, then harvesting standing forage will begin at 190 RFV.

Second, what type of forage do you have in the field? A grass stand will start growing sooner in spring and will begin to mature based on day length not growing degree days (GDD), while GDD will drive maturity of alfalfa when the stand is a mix of grass and alfalfa. A clover stand can be another consideration.

We need to build a better mousetrap to determine when to harvest forages. Two methods:

1. Scissor clipping: This method works best for grass and alfalfa mixed stands (legume & grass). The key for scissor clipping is to clip the sample about the same height, as you would harvest with your mower to be accurate, collect the sample in a plastic bag remove oxygen, and take it directly to the lab. A cost will be involved to pay for the lab analysis.

2. Predictive Equations for Alfalfa Quality (PEAQ): OK, this will only work if alfalfa is present in a stand. As a farmer, you could purchase a PEAQ stick from your local forage association council or contact Midwest Forage Association. Understand a PEAQ stick will only determine RFV of alfalfa. The ease of it is once you purchase the PEAQ stick you will have no cost. PEAQ stick measurements are as accurate as scissor clipping results as the crop matures, remember we are determining RFV, not relative feed quality (RFQ), which is a

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different calculation used to determine feed quality, but RFV is accurate to determine when to harvest first cutting alfalfa. A PEAQ stick has four sides: one is a measuring stick the other three identify alfalfa stage of growth, vegetative, bud, and bloom. Begin early in season using vegetative side, as buds become present turn a quarter turn and measure height, if a bloom is present now turn another quarter turn and measure plant height. The PEAQ stick is accurate to aid you as a manager to harvest your forage to attain the quality forage you desire. Now remember harvesting and storage if mis-managed may not yield the result you desire, even when harvesting at the correct maturity.

As mentioned you will need to begin harvest about 20 points above your desired forage RFV. If you have a mixed stand of alfalfa/grass/clover measure the alfalfa to determine the stage of growth and current RFV estimate of the alfalfa, if the grass has a seed head beginning to move upward in the grass sheath you may want to cut sooner than later.

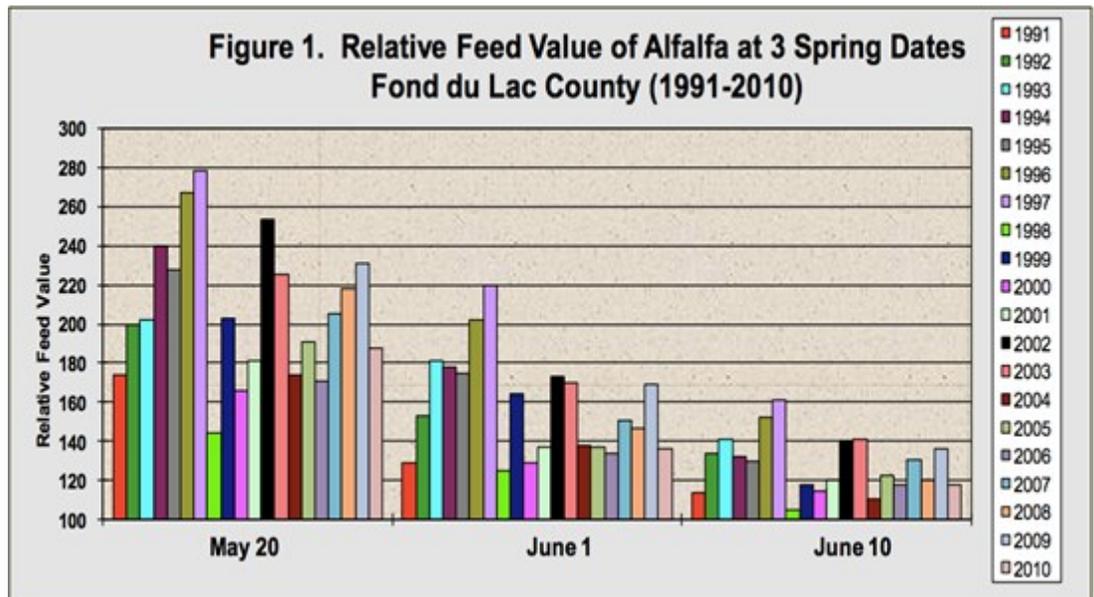
Now another method to keep you informed of forage quality changes during the spring is to visit this site: <https://fyi.extension.wisc.edu/scissorsclip/>. A number of Extension agriculture educators are collecting data and posting it on this site each week during the spring season. In addition, many will have reports on

local radio or web sites with forage changes each week.

To summarize, using a calendar date to cut first crop forage may not be the best method, as there is no correlation between calendar date and RFV of forages. Scissor clipping is a very good method, but will involve more work and some cost each time you would check a sample, but may be the best method for grass or mixed forage stands.

The PEAQ stick will provide a low cost investment alternative to determine harvest timing for alfalfa or you could follow the UW-Extension site for the changes of forage quality each spring.

First cutting of forage will supply about 50% of your forage needs for the year and you know that in the dairy business you need quality forage. If you have questions on PEAQ or scissor clipping please contact your county Extension Agriculture Educator or myself at [richard.halopka@wisc.edu](mailto:richard.halopka@wisc.edu).



# Are You Charging Enough for Your Direct Market Meat?

Ben Jenkins

UW-Madison Division of Extension  
Green Lake County Agriculture Educator

Ask a group of direct marketing livestock producers this question and you will hear some very strong opinions on this subject. Anywhere from customers won't think your product is quality if you don't charge more. To you are taking advantage of people if you charge more than the stockyard will give you.

If you spend any time in the world of marketing you'll hear this term, "what the market will bear". Why does new equipment have to cost so much? It's what the market will bear. Marketers are always concerned with finding that price point where they can maximize their profits before the price is too high for the majority of would-be customers. In other words, charge too little and you may have lots of customers, but you will **not** realize your true profit potential. Meaning, that in spite of a high number of sales, you still made less money overall than you would have if you had charged a higher price and made less sales. By not charging enough you ended up working harder for a lesser net return.

Applying the above concept to your livestock production means that if you are charging too little you might be able to sell more animals but to do so you are going to be using up more resources (time, energy, fuel, feed, mineral) to produce them. Finding that price point of profitability means that you you'll greatly reduce your overall costs while benefitting from a greater gross income. The space in-between being your expanded net profit.

Farmers tend to be their own worst enemies when it comes to pricing their products direct to the consumer. Pricing boutique meat is not as simple as taking your finished stock to the local collection point and taking their price for it. In direct marketing the responsibility for pricing is on the farmer to consider and figure out. The first thing you, the farmer, need to do in these markets is consider your cost of production. You cannot sell the animal for less than you can grow it for and expect to stay in business (<https://extension.psu.edu/calculating-the-cost-of-beef-production>). Second, consider what the market price for your animal is if you were to take the cash price at the local collection point.

Since selling boutique meat is generally done by the hanging weight you may have to take your total live weight price and divide it by your normal carcass size. Using beef for example, If your total on the hoof price for a 1200# finished steer is \$1500 and your carcasses usually hang at the local locker at 600lbs then you should not be selling your meat directly to the consumer for less than \$2.54/lb. This seems relatively simple but there is a third question to consider. What are your competitors selling meat for?

First you must identify who your competitors are. Basically, anyone who sells your particular species of meat is a competitor. Other farms, the local butcher, and the grocery store. What are they selling meat for? This is where farmers are shooting themselves in the financial foot.

They make the mistake of assuming other farmers are their real competition. In so doing they get in a rush to sell and in their rush race each other to the bottom of the price spectrum. They think that by so doing that they can undercut their neighbor and sell more meat.

In these times of tight processing space, with more customers in the market who want to buy direct than can get slots, other farmers are not as much competition as you might imagine. You are only hurting yourself if this is your mindset and you might as well send your finished stock as a commodity through the stockyards rather than deal with the hassle of selling to the general public.

In essence, you need to stop thinking like a commodity producer and get into the mind of the customer. The customer knows that there is high demand for meat from farms. The customer is aware of the inflation rate and that prices for food are going up. The customer fully expects to pay more for groceries in the future. The customer wants to support local farmers and keep them in business. The customer also values the relationship aspect of knowing who is producing their food. The customer is nervous about the safety and security of the industrial food system.

	A	B	C	D	E
1					
2	Retail prices for beef, pork, and poultry cuts, eggs, and dairy products				
3	source	BLS	BLS	BLS	BLS
	cut	Ground chuck	Ground beef	Lean and extra lean ground beef	All uncooked ground beef
4					
5	Units	dollar/pound	dollar/pound	dollar/pound	dollar/pound
6	date				
7	Feb-20	4.033	3.865	5.521	4.298
8	Mar-20	4.108	3.881	5.635	4.355
9	Apr-20	4.343	4.052	5.708	4.556
10	May-20	4.789	4.461	6.101	4.931
11	Jun-20	5.330	4.737	6.314	5.291
12	Jul-20	4.732	4.264	6.052	4.840
13	Aug-20	4.307	4.177	5.760	4.640
14	Sep-20	4.165	4.076	5.730	4.547
15	Oct-20	4.212	4.008	5.758	4.552
16	Nov-20	4.330	4.027	5.672	4.596
17	Dec-20	4.202	3.951	5.715	4.555
18	Jan-21	4.310	3.965	5.705	4.543
19	Feb-21	4.252	3.987	5.611	4.556
20	Mar-21	4.377	4.042	5.780	4.648
21	Apr-21	4.290	4.096	5.973	4.656
22	May-21	4.495	4.101	5.952	4.703
23	Jun-21	4.565	4.357	6.016	4.869
24	Jul-21	4.521	4.388	6.081	4.846
25	Aug-21	4.636	4.468	6.179	4.964
26	Sep-21	4.786	4.504	6.146	5.051
27	Oct-21	4.869	4.719	6.371	5.237
28	Nov-21	4.810	4.716	6.270	5.261
29	Dec-21	4.792	4.604	6.315	5.174
30	Jan-22	4.765	4.554	6.519	5.170
31	Feb-22	4.627	4.630	6.465	5.199

Think about it this way; your suppliers are not asking themselves "what is a fair price to sell this fertilizer,..."?

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They are asking at what price will I no longer be able to sell fertilizer? This is the mentality that you the producer need to adopt. This is hard for farmers to do because giant corporate buyers have told farmers for decades that there is no value in what they produce. If you do a comparison using data collected by the USDA are the claims of the corporates true?

Keeping beef as an example, if you were to do some price comparisons of your grocery competitors, you might be astounded to know that a 600lb carcass could be worth as much as \$3,000 when sold retail to an end user, the average meat customer [[https://www.canr.msu.edu/how\\_much\\_to\\_expect\\_when\\_buying\\_freezer\\_beef\\_part\\_two/](https://www.canr.msu.edu/how_much_to_expect_when_buying_freezer_beef_part_two/)].

How much income would be added to your bottom line if you were able to gross \$2000/head on animals that hang at 600lbs? How much would you have to charge? \$2,000 divided by a hanging weight of 600lbs give you a price of \$3.34 rounded up. Add a dollar for processing and the end user is paying \$4.34/lb. If you look at the [https://](https://www.ers.usda.gov/data-products/meat-price-papreads.aspx)

[www.ers.usda.gov/data-products/meat-price-papreads.aspx](https://www.ers.usda.gov/data-products/meat-price-papreads.aspx) you will see that ground beef has been selling at stores for ~\$4.60/lb. If your customer is a steak person, they will be really happy to pay you the producer \$3.50/lb for a whole side, maybe even more if your product has some other value-added benefits. The bottom line here is don't sell yourself short, you the farmer deserve to make a living too.

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## Selecting Heifer Breeding Candidates

By Sandy Stuttgen, DVM, Agriculture Educator  
UW-Madison Division of Extension

To maintain its size, a beef herd's annual replacement rate typically equals the number of cows that exit annually due to death, marketing, or culling. With a typical replacement rate of 15%, four replacements per year are needed for the average Wisconsin cow-calf herd with 25 cows. Producers need to decide if purchasing replacements or breeding their own heifers is best for their operation.

When selecting your own heifers for breeding, you must first determine if they will reach puberty before your desired breeding date. Puberty is dependent on three things: age, weight, and breed composition. British breeds (Angus, Hereford, Shorthorn, etc.) attain puberty sooner than Continental breeds (Charolais, Limousin, Gelbvieh, for example) and both breed groups reach puberty sooner than do Brahman cattle (Short, et.al.). Larger framed cattle generally take longer to achieve puberty. Medium and small framed heifers (frame scores 4-6) will more likely reach sexual maturity as yearlings at an age-weight correlated puberty.

Research conducted by Dickinson et. al demonstrated an association of age to the breeding outcome. Their research found an 88% pregnancy rate for heifers that were at least 368 days old when bred; only 12.5% became pregnant when bred younger than 368 days of age. As a note of caution, Day and Nogueira explain, "Heifers reaching puberty at very young ages are often exposed to fertile bulls or bull calves. Heifers that experience precocious puberty (puberty before 300 days of age) and be-

come pregnant at this time usually calve late or after the normal calving season for their herd, are of smaller size than heifers calving for the first time at 2 years of age, and have a greater propensity for dystocia, calf death loss and calving and an extended postpartum recovery period."

Heifers should be bred at 55-65% of the cow's herd's mature weight, without being fat, when they are 12 months old. Recent research indicates heifers may be bred at lower bodyweight thresholds, ranging from 50-57% mature weight, without sacrificing reproductive performance. "A window of opportunity [exists] for the development of heifers of varying weaning weights to reach a target mature body weight greater than 53% that is likely influential on their reproductive performance," Dickinson states.

Weaning weights are affected by the age of the animal and to account for this, an adjustment is made for animals all weighed and weaned on the same day but differing in age. The standard age for the adjustment is 205 days. This calculation is known as the standardized 205-day adjusted weight, or 205-Day Weaning Weight. To calculate this adjusted weight, the ADG from birth to weaning is multiplied by 205, and then birth weight is added:

205-Day Weaning Weight = (lbs. weaning wt. – lbs. birth wt.) / age of weaning in days x 205 + lb. birth wt.

Use heifers' 205-day of age adjusted weaning weight to identify those with above average standardized weaning weights that are not too fat to identify the pool of breeding candidates; then, select the older ones in the pool as they will have the greatest likelihood of cycling by the

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target breeding date. It is recommended to select replacement heifers for breeding who themselves have early birthdates within the herd's calving season as this indicates they were conceived early in their breeding season. Born early in the season means they will be older and heavier when weaned (more days nursing and grazing or eating at the bunk) that will support puberty as they reach their 12th month of age.

Yearlings' reproductive tract scores determined by a veterinarian provides evidence of puberty as does monitoring heifers for estrus activity (physically watch, use tailhead paint or patches). Make sure heifers have adequate space and good footing to allow them to safely express estrus. Estrus synchronization for AI or timed AI works well with heifers, especially with those who have shown one or two heat cycles prior to start of the synchronization protocol.

## Questions from my Desk

Richard Halopka, CCA  
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Farmer's question: I was informed from a sales person that I should consider purchasing Pivot Bio to receive "free" nitrogen versus purchasing nitrogen at record prices, does it work?

First, if you purchase Pivot Bio the nitrogen will not be free. There is a cost to purchase the product. Now I think we need to consider the next question, is Pivot Bio economical in central Wisconsin?



Many times people ask my opinion, however my opinion will be based on scientific research and if the product will be economical in the area, you are growing the crop.

Pivot Bio is a buzz product this past fall and winter. The increased cost of fertilizer in general has many people looking for an alternative to commercial fertilizer. However, did you ask the correct question, is it economical?

Let us address the question on Pivot Bio. I don't know the cost per acre of the product, but have heard \$15.00 to \$20.00 for the product. Now do you need application equipment? If you don't need application equipment, you can save that cost.

Dr. Trent Robert's from University of Arkansas did research on this product and to the products defense it may

## Citations

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be a small sample of research. Now remember the weather conditions in Arkansas are much different from central Wisconsin. The early conclusion is results were variable and while some contribution of nitrogen to the corn crop can be contributed to Pivot Bio, it is variable and a limited amount.

Now let's look at economics. Currently nitrogen will cost in the neighborhood of \$1.00 per pound/unit of nitrogen. If the cost of Pivot Bio is in the \$20.00 neighborhood with variable results, which is a better management decision or investment, Pivot Bio or purchasing twenty pounds of nitrogen?

In addition, in central Wisconsin we have greater variability in weather than Arkansas.

If you have concerns with high fertilizer prices, the best option is to manage the nutrients you have available on your farm. This would include the livestock manure you apply to fields, the crop rotation contribution to crop yield, and your soils organic matter. Soil organic matter, provided you have good weather conditions during the growing season, the microbiology already present in your soil, will mineralize more nitrogen for your corn crop than the potential return from Pivot Bio, at no cost to you the farm manager.

With high fertilizer, prices there will be products promoted as a better alternative compared to conventional practices. Most of the products do work as companies and sales staff promote them, however you are the farm manager and profitability should be your only concern. So now the correct questions is will this product be economical and produce a profit in this growing season for corn production? From research, Pivot Bio has provided little potential economical reward with limited research in a climate/growing season much different that central Wisconsin.

If you have questions about crop production, calculating cost of inputs and alternative inputs please contact your local county extension educator or myself [richard.halopka@wisc.edu](mailto:richard.halopka@wisc.edu).



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