



ADVANCED AG SYSTEMS'

# Crop Soil News

<http://www.advancedagsys.com/>

April 2022

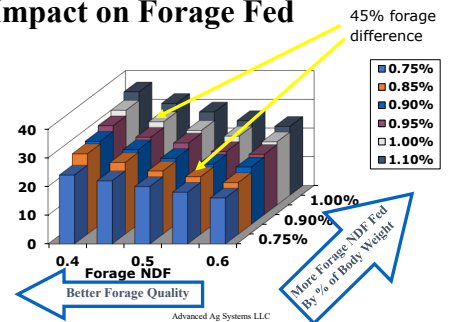
"It is the crops that feed the cows that make the milk which creates the money."

## Managing through a Challenging Time

This is a difficult newsletter to write with so many factors affecting the farm in play. It is even more difficult with your farm business on the line. We have been through both low and high milk prices and high grain prices times before. Farms survived then and will now but not without some change. An old farmer is saying that "Doing the same thing over and over again and expecting different results is the definition of insanity."

If you are not there, one of the key steps is to maximize the milk produced by the least expensive feeds. In short, you want more money for your efforts which is not the same as more milk. This is doubly critical for farms that their milk processor have told them there is a limit on what they will buy. Some are reducing the number of cows to meet milk limits. Higher forage increases components so you get paid more for the milk. This is not new but old hat for farmers in Canada. For the majority of US and Canadian dairy farms, the **least expensive source of energy and protein are the forages you produce**. As you can see by the graph at right, across the bottom going left, by increasing the forage quality you can increase the amount of forage the cows will eat. On the graph going up at the right, for each forage quality level, simply having the nutritionist increase the forage in the diet can increase the amount of forage fed. Moderately low forage quality and feeding level vs a moderately high on both can mean a 45% difference in the amount of forage fed. Nutrients you don't have to buy into the farm. Increasing forage is done a small step at a time. At each step the ration needs to be rebalanced. It can be done while producing the same or more milk without losing body condition.

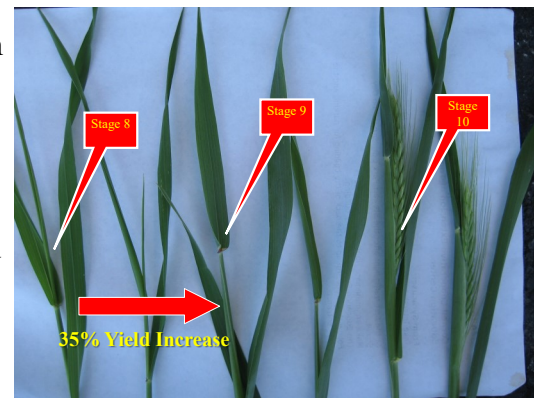
Quality & Quantity Impact on Forage Fed



Advanced Ag Systems  
Research, Education, Consulting

What is high forage? When we started we said 65% forage in the diet. Farms would not believe us if we said higher. Now there are numerous farms where 70% forage is the standard and some US and Canadian farms are higher. This is done without giving up milk or ruining the body condition score. Feeding a cow like a cow (forage) is an old idea that is critical today. You need quality forage, you need enough forage, and you need a nutritionist who is on board and supports the goal. You will not get there overnight but continually make small changes increasing the forage. Our work in the 1990s (yes, this idea is not new) as documented by the Cornell Dairy Farm Business summary and by Dr. Chase of Cornell (Benefits of High Forage Diets on 14 case farms, 2012) found: greater components (more money for the milk you can sell), improved herd health (vet bill dropped faster than grain bill), less metabolic disorders and acidosis, a **30% increase in income over feed costs**, and as a result a decrease in open accounts.

To achieve this, you need greater than **60%NDFd forage**. This means the focus on quality is critical. Quality is driven hugely by the stage at harvest. The first crop ready to harvest in the spring is the winter forage – triticale or rye. Our research over 20 years has found that the **flag leaf (stage 9) is the optimum balance** between yield and quality. Rye is usually the first to flag leaf, but newer triticale varieties are just as early. The other factor is when you planted it last fall. Each week delayed planting usually adds 2 – 3 days to when the crop is ready to harvest in the spring. Because quality is so critical to high forage feeding, it is better to err on the side of too early than too late for winter forages. If you are at stage 8 (the last leaf rolled) and are facing a week of warm rainy weather, we suggest harvesting before the rain. You will lose 25-35% of the yield but will maintain the very high digestibility and probably have higher protein as the nitrogen is spread over less dry matter. If weather delays harvest and there are colder temperatures, the quality will often hold through the boot stage, so don't give up. Ideally, you will have nice weather when the last flag leaf is all the way out (stage 9).



For intensively managed grass and alfalfa grass mixes, the grass is ready about a day or two after the winter triticale. Every analysis I have seen shows **significant profit advantage to stopping corn planting and get the first cutting in at peak quality**. A phenological predictor developed by John Winchell of Alltech is to look for a dandelion head that has turned all white in the all-grass field. When you see this it is time to mow the straight grass fields. Your **INDIVIDUAL** fields of **ALFALFA MIX** should determine when you should start **HARVEST**, using **YOUR alfalfa as a predictor**. The height of alfalfa can predict when in your local climate, condition, and individual field, should be cut. It simply involves using a ruler and the following table developed by Dr. Cherney at Cornell:

Alfalfa in/near a Grass field is 13 inches tall	Start to Cut Your Mostly Grass Stands
Alfalfa in a 50% Alfalfa: 50% Grass Stands is 23 inches tall	Cut Your Mixed Stands
Alfalfa in greater than 80% Alfalfa Stand is 30 inches tall	Cut Your Mostly Alfalfa Stands

A more precise system is to go to <http://www.forages.org/index.php/tools-grassman> Dr. Cherney of Cornell developed this slick, accurate system. Click on the grass, alfalfa-grass, or the alfalfa estimator. For the latter two insert the alfalfa height, percent grass, NDF target, and the weather (normal, hot, cool) and **it will tell you how many days until that field under your conditions is at peak quality** for harvest. Using the predictor system to determine what fields to harvest first, allows you to harvest early fields and later fields at peak quality. Make a list and follow it. If the weather causes you to miss quality on a field, skip it and go on to the next quality one. The skipped can be used for dry cows or heifers. Don't make all the rest late because of one missed. You need high quality forage from **ALL** fields. If you have fields that are in a low, warm, sheltered location, they **are ready earlier** than the rest of the farm. A well drained soil will have forage ahead of a poor drained soil. A north facing slope will be further behind a south or south east facing slope. A clear alfalfa on well drained south facing field could be ready before a grass field on a wet north facing slope. Utilizing a wide swath of same-day haylage will open more days for you to get your winter forage and your other haylage harvested. This is discussed in the short video ([How to Harvest Winter Triticale](#)). Not only will it give you more days to get the harvest in, but will also increase the feed value by increasing digestible components for supporting milk and speed fermentation to conserve more of the feed to the mouth of the animal.

Sincerely,

Thomas Kilcer,  
Certified Crop Advisor

2150 Cherry Street  
Rutledge, TN 37861

Tel: 518-421-2132

[tfk1@cornell.edu](mailto:tfk1@cornell.edu)

**The Helping  
Hand  
to Better  
Agriculture**

