



As we become older, a useful skill to develop is to make old things become new again. I, have been forced (kicking and screaming) into this predicament, myself. One huge advantage with using "old technologies" is that us old geezers can be at least partially familiar with the process and not have to start completely from scratch.

In the forage business, I have been in the (winning) battle for the acceptance of grasses back into alfalfa stands. Even though the grasses are new not old, i.e., modern European genetics that add yield and quality to the resulting forage crop. Another example, is the resuscitating the use of cover crops into modern crop farming in the place of more chemicals. Modern crops, like deep rooted annual ryegrasses, vetches, annual clovers and tillage radishes are starting to be viewed as much better solutions to improving soil structure, increasing organic matter, improving porosity and water-holding capacity and scavenging otherwise lost fertility.

A new idea (except for a few diehards, but still not with wide acceptance) is to reintroduce red clover in the mix with our alfalfa and tall fescue. The reason for my epiphany was that I got some new samples of forage to rebalance a ration and was jolted into awareness by the test results of a sample of red clover balage. It had a NDF-d of 65%! Remember NDF-d measures the digestibility of the most indigestible fraction of a forage, the NDF. Typical NDF-d's of alfalfa haylage center around 45%. Twenty points of increased digestibility is a big deal. Please bear in mind, I am not saying that we should eliminate alfalfa where we can grow it successfully; just that maybe we should reconsider clover as part of the mix, especially when we are looking at keeping alfalfa for only three rotations anyway. Clover will add to the quality.

The benefits of alfalfa are many and well known. However, let's look at what modern improved varieties of red clover bring to the table:

- More winter hardiness
- Clover better tolerates "wet feet"
- Not as dependant on high soil pH
- Has higher RUP or bypass protein than alfalfa by almost double.

Work at the USDA Forage Research Center in Wisconsin with red clover replacing alfalfa showed:

- Dairy cows had reduced feed intakes with red clover-based diets, but had similar milk yield and produced less manure. This is the result of increased digestibility.
- Less crude protein was converted to NPN, which improved dietary protein efficiency and reduced manure nitrogen

To be sure, when I searched all my data bases and threw in all the samples of clover I could get from Dairyland Labs, the samples of clover haylage did not average 65%, but rather 53.4% at 30 hours. In work at Cal-West, a major breeder of alfalfas and clovers I found with pure clover and alfalfa harvested in research plots on exactly the same day, Clover averaged

7.8% higher than alfalfa in NDF-d. When clover was harvested 3 to 4 days after the alfalfa, the clover still maintained a 3.6% advantage.

With the new improved varieties of red clover, with greater yields and persistence, maybe it is time to take another look. Even if you have to dry bale, Freedom Red Clover, with its lack of pubescence (or hairless stems) dries much like alfalfa. If dry baling is not an issue, Cyclone II has been a winner in both yield and persistence. Last, and not least, a new red clover, Emerald (limited supply), has a very impressive late season production.

How much clover should I sow? One of our larger Wisconsin dealers, Dave Storms is also very successful commercial balage producer, and delivers his product to dairies all over the Midwest. He has 2 to 3 pounds of clover and 10#'s of grass (mostly tall fescue) in every one of his hayfields. Yields of 7 to 8 tons of dry matter of dairy quality balage are standard for Dave.

Embracing old things that have become new again at least makes the transitions less devastating for us old timers. Even old dogs can learn new tricks when the new tricks aren't completely off the wall. And, I guess, Solomon was right about there's nothing new under the sun.