

Common “Myths” in Sheep Farming

—Ulf Kintzel

Before I start, allow me to be clear: I remain to be the “facts guy.” I don’t subscribe to conspiracy theories. I don’t subscribe to ideas like the moon landing was fake, the election was stolen, vaccines include microchips, and ivermectin cures Covid. If you thought I will open such a door I will disappoint you. I always let facts speak and then form an opinion. I never form an opinion first and then look for supporting evidence, dismissing evidence to the contrary.

Having that said, over the years I have found that certain “truths” in sheep farming are being kept alive by simply being repeated by all kinds of people, including college professors, extension agents, and farming magazine publishers (the latter not to be confused by the editors of *Farming Magazine*). It is not my intent to argue anything with anybody. I am simply sharing my experience, which differs greatly in the cases I will describe. You, the readers, get to decide if you will take my advice or if you will leave it.

Myth # 1: White clover will die out over time.

Legumes are in my view essential for a sustainable pasture. The part that makes them essential for sustainability is the fact that they can fixate air nitrogen through the bacteria attached to their roots and thus add fertilizer to the pasture. In addition, most legumes are highly nutritious and are eaten in great quantities by sheep, increasing food consumption. One of my most favorite legumes is white clover, from which my farm derives its name. The white clover I am referring to is high-yielding New Zealand grazing white clover, not to



This is my 15-year-old stand of Alice White Clover near the barn with its Barauna orchard grass companion.

be confused with the low-growing Dutch white clover, which you probably see growing in your lawn. The varieties I am referring to have names like “Alice” and “Kopu 2.” There are many more and your local seed dealer will surely be able to tell you what varieties he or she has available. If you want to find out more about my experience with white clover, I recommend my extensive library of my articles on my website. Click on the button “articles” in the menu bar and you will find more than you will ever want to know about this legume. For the sake of this article, I will focus on its longevity.

My first and oldest stand of white clover here at our new location in upstate New York is a 15-year-old stand of “Alice” in a 16-acre pasture cell, formerly a pumpkin field that reseeded with various grass species and legumes when we arrived here in the Finger Lakes region in 2006. Alice is not quite as large as some other grazing white clovers but is in my view very aggressive in its growth habit.

Years ago, I read in a well-known grass-farming magazine that white clover will die out in well-fertilized pasture. I raised my eyebrows but dismissed it as a one-off by a publisher who does not grow pasture or raises any animals himself. I figured he interviewed someone and just repeated it.

I included a picture in my article of my old stand of Alice white clover near my barn. The area has very good soils and is heavily fertilized with sheep manure because this is where a lot of winter feeding takes place when the snow gets too high to do it elsewhere in the pasture. It is also a “holding” area after I run my sheep through the chute. It gets fertilized repeatedly that way and I don’t

Photos by Author

have any pasture anywhere else on the farm that grows as rapidly as this area. Yet the white clover persists and thrives under these conditions that are precisely the ones that were said would eventually kill the white clover.

Then I read it again in a field guide from a well-established university in the upper Midwest. It stated that white clover is not long lived. I have heard it many times since, stated as a “fact.” I have mused about the reason why various people concluded that white clover dies out over time and does not persist, according to their opinion, which was stated as a fact. I suspect the conditions under which white clover can indeed die out were such that it did not persist and they took that experience and made it into a general statement. White clover likes and needs light. If it gets shaded out, it will be outcompeted. Highly fertilized stands may have rapid growth and thus shade out the clover. The misguided practice of “tall grass grazing” in our climate also leads to a lack of light for the clover. That means that the conditions don’t allow the white clover to continue to compete. Here is the other side to that extreme: your lawn that you mow regularly. You likely keep it short. You likely have Dutch white clover in it. I have heard lawn fanatics being exasperated that they cannot get rid of the white clover in their lawn, no matter what they tried. However, by keeping the lawn short you are creating the most favorable condition for white clover, which needs light and does not mind being kept short. My pasture is in between these two extremes. While I always have a significant height in my pasture before grazing and while I always leave significant residue, I never let grass grow and remain at heights that would deprive my white clovers of light and thus outcompete it.

In addition, in my rotational grazing system, my white clovers will bloom from spring until the growing season ends. While there is a peak of blooming, it never is purely seasonal. That means it keeps reseeding itself all season long.

Myth #2: Red clover causes infertility in sheep.

If you subscribe to a sheep magazine of any sort,

chances are, over time you will eventually read or have already read an article about red clover causing temporary infertility in sheep. The estrogen-like substance called Phyto-estrogen in the plant is said to be responsible for it. (The same infertility claim has been made about white clover, alfalfa, and legumes in general, albeit to a lesser degree and with lesser frequency.)

Such articles will not be about a new field trial that proves that. Instead, it will be a recap of previous writings. In 1946, a field trial with subterranean clover was conducted in Australia, which established that this clover caused temporary infertility. Research here at home was done in the 1950s and has not been done since. Even then, the research was extraordinarily scarce. I find it astonishing that a field trial this old and something that has been researched so little is being viewed for decades as the ultimate truth. College professors and extension agents do not shy away from making that claim. Yet, repeating the same time and again in various publications or during lectures doesn’t make it any truer, but for readers and listeners who hear the same claim time and again, it may sound like there is news on this topic each time they hear it.

I have written an article about my experience with grazing red clover, including grazing it during breeding season, which was published here in *Farming Magazine* and can be found on my website. But I have been asked about this topic many times since, so I included the subject here once more. I have grazed red clover for many decades without any noticeable downside but many upsides. There is the occasional ewe that either does not get pregnant or it takes several estrus cycles to get her to become pregnant. There can be many reasons why that is, and I cannot specifically exclude red clover being the reason for it, but because it is approximately one or two ewes annually in a flock of 200, there really is no reason for trying to get to the bottom of it.

Just like its cousin, the white clover, red clover is well liked by sheep and eaten in great quantities. It is highly nutritious, although white clover is better balanced in its nutrients. It is also high yielding. Red clover is a

Red Clover Drought: Among the many benefits red clover offers is its relative drought resistance. It kept growing during our summer drought in 2017.



biennial and to have thick stands it needs to be reseeded after a couple of years. However, under proper grazing conditions it will get a chance to reseed itself to a degree that a good stand can be maintained in any given pasture.

I took the matter of grazing red clover during breeding season in some years to an extreme. I didn't do it to prove a point. I did it because lots of red clover fields were available to me for grazing. My neighboring farmer grows red clover and sells the seed. I have grazed many of his red clover fields in the fall after harvest during breeding season with several groups of ewes and a ram, grazing this legume almost exclusively for two to three weeks. It caused no temporary infertility.

Myth #3: Sheep don't need copper.

"In the olden days," when dewormers were not as readily available and not as widespread, copper sulfate was a common way to deworm sheep. I remember in the 1980s that my supervisor, who was 30-some years older than me, took a handful of copper sulfate and put it in the watering trough for the flock of Merino sheep. It was during the middle of summer, when barber pole infestation is usually the highest. A friend of mine, almost as old as my former supervisor, who lives in southern Germany and was raised on a sheep farm, tells me that deworming sheep with copper sulfate was commonplace back in the days when he was young. Then more and more of the British meat breeds were introduced and crossed with the common landrace breeds to produce more meat. They brought with them a higher sensitivity to copper. How does that sensitivity work? Most animal species easily excrete excess copper. Many sheep breeds do not. They store it in the liver. When a sheep is stressed, it may release that stored copper into the bloodstream. Such high concentration of copper is highly toxic, and the sheep dies. There aren't many treatment options, and the ones that exist are not offering a great chance to save the poisoned sheep.

Many British breeds are commonplace in the U.S.: Suffolk, Hampshire, and Dorset sheep are all British. Labels for sheep feed state "No copper added." Many publications warn, correctly, of adding copper to sheep feed. This does not mean there is no copper in the

sheep feed. In fact, any grains in the feed do contain copper. Nevertheless, this has apparently evolved into the statement that I hear so very often: "Sheep don't need copper." However, not adding copper to sheep feed is not at all the same as stating sheep don't need copper. Copper is essential for many processes in a sheep's body. It is especially important when the fetus is developing, specifically its central nervous system. More than 20 years ago I had a case of copper deficiency, which caused me great losses since many lambs were born too weak to get up or had no suckling reflex and died shortly after birth.

I educated myself on that subject and as a result I have added copper in my mineral feeding program. My current trace mineral mix is a 50/50 mix of salt (Mix-n-Fine® Salt or Morton Fine Solar Salt or any other available plain salt) mixed with Champion's Choice® Selenium '90' Trace Mineral Salt. That gives me 150 ppm of copper in my mix while I still have enough of the other important trace

minerals like selenium, as well as iodine, in that mix.

I feed this mixture of salt and trace mineral salt free choice throughout the year. However, my sheep are grass-fed. The calculation is very different when you feed grain, especially when you feed a lot of grain. I once did the math and calculated that for each sheep in my flock, the daily maximum intake of copper from my minerals equals the copper that is present in two pounds of shelled corn. You likely are already giving plenty of copper to your sheep when grain is fed. Adding any copper to the mineral mix might then not be wise.

Did I ever have any copper poisoning with my mineral mix containing copper? Many years ago, when I upgraded a flock of Texel sheep to a flock of White Dorper, I had two individual cases in separate years of a half-bred ewe showing typical symptoms of copper poisoning. An autopsy I conducted confirmed copper poisoning when I examined the kidneys, which looked almost black. Texel sheep—a breed from the Netherlands—are said to be particularly sensitive to excess copper. Since I have a flock of purebred White Dorper sheep, I have not experienced any copper poisoning.



My trace mineral (middle) contain the important trace mineral selenium as well as iodine and also contain copper.

Myth #4: Rams responsible for the twinning rate of the ewes they breed.

It is a common misconception that a ram has no input whatsoever on how high the twinning rate is in the ewes that are bred by him. Wrongly assumed is a genetic ability of one ram (often associated with a twin-born ram) to sire more twins than another ram. However, the twinning rate is entirely dependent on the ovulation rate of the ewes he breeds. There is a scenario under which your ram is not healthy, and the overall lambing rate drops because of health issues. However, that would be because of a sick ram. Or you have a ram that lacks libido (unwilling to breed) or suffers from infertility. However, between any two healthy rams there never is a genetic ability of one ram to sire more twins than the other.

A healthy ram will always just fertilize however many eggs the ewe ovulates.

There is another part to the twinning rate, which I addressed in length in one of my articles that was published in this magazine, which can also be found on my website, which is the twinning ability of a ram's offspring. Now we are talking about the next generation. Common belief is, if you breed twin-born ewe lambs to twin-born rams, you get more twins. Reality has it that this is not quite the case because twinning has an extremely low heritability, meaning that twinning ability is only passed on to the next generation in a very small amount. You would have to go many generations over decades to improve the twinning rate, but you would still only improve it marginally. Why not select for it anyway? Because there is a risk when selecting for a specific trait to inadvertently select against many other good traits, e.g., growth rate. Meanwhile, there are many management ways to increase twinning rate in just one season if it is too low in your flock. Feeding (flushing effect), health,

and stress (or lack thereof) regimens will have a much greater impact on twinning than a twin-born ewe, bred to a twin-born ram. All of it is described in detail in the afore-mentioned article.

I have successfully been growing lots of enduring white clover on our farm. I have added copper to my trace mineral salt for many years. I have grazed red clover whenever it was available to me, including during breeding season. I have not worried about whether a ram was single, twin, or triplet born. Instead, I created favorable conditions

during breeding season with little to no stress and lots of good grazing. All the above has served me well. It has served me so well that I have no issue with putting my neck out and sharing it with you, the reader, even though I am aware that it is contrary to what you may have heard or read. I practice what I preach, and it only had



Many traits are important in a breeding ram (center). Whether he was twin-born is not one of them.

upsides and no downsides for my business. 🐑

Ulf owns and operates White Clover Sheep Farm and breeds and raises grass-fed White Dorper sheep without any grain feeding and offers breeding stock suitable for grazing. He is a native of Germany and lives in the US since 1995. He farms in the Finger Lakes area in upstate New York. His website address is www.whitecloversheepfarm.com. He can be reached by e-mail at ulf@whitecloversheepfarm.com or by phone during "calling hour" indicated on the answering machine at 585-554-3313.



Office: 1 (989) 834-2661
Mobile: 1 (989) 277-6031
Greg.Palen@aAaWeeks.com

6672 East Taft Road
Ovid, MI 48866