

GRAZING ALFALFA IN LINCOLN COUNTY

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Alfalfa grazing is becoming an important practice for our county's large livestock enterprise. Both dairy and beef producers use alfalfa grazing in various parts of their feeding operations. Lincoln County farmers have a reputation for being good forage producers and have over the years produced good yields and good quality alfalfa. Most producers realize that good forage leads to better profits for their livestock enterprises. That's very important to us as the livestock business generates over \$21 million in cash receipts annually.

Lincoln County is the 5th largest county in the number of cattle and calves. We have the 7th largest number of beef cows and the 7th largest number of dairy farms in Kentucky. There are 450+ beef producers and 93 dairy operations in the county. It takes a lot of feed for these cattle. We annually produce around 8600 acres of corn for grain, 7000 acres of corn for silage, 6800 acres of alfalfa and 32,000 acres of other hay. There are 30,000+ acres of pasture which is estimated to be around 35% in grass and 65% in grass-legume. Some may doubt our figures here but a lot of the pioneering work in renovation was done in Lincoln County, so our pasture improvement has been ahead of most counties. Some of our KFGC founders did a lot of demonstration work there. Evidence of the educational programs, preaching and harping done by Russell Cornelius, Warren Thompson, Charlie Schnitzler, Wallace Campbell, J.B. Holtzclaw, Ken Evans and others is still seen today as farmers continue to use various methods to add legumes to their pastures.

I appreciate the groundwork these men did because when I came to the county in 1980, the producers listened and believed when I talked about improving pastures. This was a surprise to me as a young agent, who had worked hard in my first county to get farmers to improve pastures and about the best I had done in 5 years was to get them to cut their sagegrass hay early. Shortly after I moved to the county, I was told by Charlie and Wallace that I would be completing Mr. Cornelius's term on the KFGC Board. This was my first opportunity to get to meet Garry Lacefield and Warren Thompson. They, like many others, told me I had big shoes to fill and I had better get to running. Warren told Garry I needed to conduct an alfalfa variety demonstration in the county. Before I could ask what was involved Garry had 24 varieties of alfalfa seed and red flags loaded into my car. Well, after 11 hours of work and burning up the farmer's wife's vacuum cleaner, I got my first alfalfa plot seeded. This was the beginning of 16 years of variety testing of legumes and grasses in Lincoln County. The farmers and I have learned a lot through these demonstrations but I can easily say the best experiences we have had, that has and will affect future livestock profits the most has been our success with alfalfa grazing.

My first interest in alfalfa grazing came in 1982 when observing J.B. & Bill Holtzclaw's steers grazing orchardgrass, red clover, and alfalfa mixed pastures. They had been having success with freeze seeding, 4 lb. of red clover, ½ lb. of ladino, and 4 lb. of a hay type of alfalfa on to fields where they had grazed down corn. They had alfalfa surviving well under good management and rotation. About that time I went back to U.K. to work on my Masters Degree under Dr. Chuck Dougherty. He showed us how to tie cattle in alfalfa fields for grazing. I didn't think tethering our Lincoln County cattle would work, but I thought the concept of grazing alfalfa was a smart idea because of the quality and quantity of pasture it would produce. My interest was sparked from what Dr. Dougherty taught us. Dr. Bill Nesmith was looking for a place to do some no-till alfalfa seeding to study pest control at establishment. I jumped at the chance to do this demonstration because I knew if we were going to increase our alfalfa acreage we needed to have success with no-till. I learned from this demo about proper no-till practices and thanks to that farmers increase in cattle numbers I learned that continues grazing of hay type alfalfas will thin a stand quickly.

While observing this and other plots with Warren Thompson in 1989, he told me to be looking for a good spot for a demonstration of something that would really change the alfalfa industry. I got a couple of sites in mind that fall and in the spring of 1990, Warren and I worked with John Elliott, Jr. to seed the first on farm test of Alfagraze in the world. This was the beginning of a great learning experience and demonstration. We seeded Alfagraze between two blocks of Apollo to use in comparison for grazing productivity and survivability from grazing by beef steers. We quickly saw that Dr. Joe Bouton's breeding and selection of this new variety was going to be great for our livestock producers. The conventional seeding established very well. We harvested two cuttings the first year and then began rotational grazing. The years following have been a combination of grazing and hay usage.

We have been through 6 seasons and the Alfagraze is still good enough to keep as pasture for 1997 with an estimated 20% stand. The Apollo stand has been weak the past two years and should be replaced. We have grazed this plot hard but allowed good rotations and used good management. We have experienced annually around 5 ton per acre yields for grazing or hay. As a result of field days, tours and farm visits, farmers and industry folks have learned from this demo and many have put Alfagraze to work on their farms. We continue to do work with Mr. Elliott and now have 4 other grazing demonstrations looking at varieties, seeding management, cattle management, and etc. on his farm.

Dairy farming in Lincoln County is primarily for producers milking 40-70 cows. Many use pasture to supplement stored feed. We began to promote alfalfa grazing to them, but they were hesitant to back off of stored feed. In 1992 Dr. Donna Amaral-Phillips and I began a Dairy Profits Project with 9 young dairy farmers. We evaluated their operations and worked with them to make improvements. Most of these producers could benefit greatly from improved forages. Seven of these producers were using supplemental grazing on grass, grass-clover and summer annual pastures. We encouraged them to consider renovating with Alfagraze as it was basically the only grazing type being marketed at that time. The next spring, Dr. Jimmy Henning began

working with us on his Forage Initiative Project. He and I begged seed from dealers and put out a no-till alfalfa variety test to compare 16 alfalfas, some of which were advertised as grazing types along with 7 types of red clover for grazing by Jersey cows. We put this on a dry, compacted, fescue pasture. It was a steep hill pasture, in fact it was so steep we turned the spray rig over. We had 2 acres in the variety plot with the remaining 5 acres of the field sown in Alfagraze. The alfalfa got off to a slow start. It came up but didn't grow much. We about gave up on the plot and didn't manage the field well at all.

The cows continuously grazed the field until December when they went to the barn for winter. In April of 1995, Bo Gander called and told me to come and see how much damage he did to the plot. When I arrived at the field, I was amazed. I saw a few of the varieties looking pretty good in the plot, but the 5 acres of Alfagraze looked great. It had taken the bad weather, the overgrazing and the weed pressure and was still healthy and in a high gear of growth. This was a good growing season and the farmer managed his rotational grazing well. All of the varieties came on well and produced a lot of grazing for the herd. The farmer also experienced a six pound increase in milk production per cow per day during the grazing season. I told him to practice our fall grazing management and to get the cattle off the pasture by mid November. Well it kept raining, the alfalfa kept growing and he kept grazing on through September, October and November. I figured this would surely kill the stand. In April of 1996, the Alfagraze was back strong again. The clovers were all gone and most of the alfalfas were very thin stands. The farmer did a great job with the grazing in 1996, which is shown by another seven pound of increase in his milk production. He averaged 51 pounds of milk on Jersey's during the grazing season. He has added another 8 acres of alfalfa for grazing. We are continuing to work with him on setting up fencing and water as well as learning rotational management to keep production and utilization high.

In 1994 Dr. Henning and I no-till seeded a red clover plot at the Ray Wren Farm in a poorly to moderately well drained soil. We also put in strips of Alfagraze and Prograzer. The clover demonstration did very good and helped us show producers the benefit of new and improved varieties. But it was the alfalfa that caught a lot of folks attention. Both of these varieties took the grazing pressure well and were hurt very little by the poor drainage. Mr. Wren continues to work with us but he only wants to seed alfalfa now in his pastures. We no-till seeded 8 alfalfa varieties mainly grazing types there in April of 1996. We harvested the first cutting and have rotationally grazed the rest of the season. All varieties have performed very well this first year as you would expect. We will evaluate this under dairy grazing again this year. Mr. Wren's holsteins have increased production 9 pounds per cow since they have gone to rotational grazing. Alfalfa grazing has helped him grow from 31 cows just three years ago when he was buying additional hay to feed those cows. He is now producing enough pasture and hay for 46 cows on 78 acres. Alfalfa grazing has helped him sustain and enjoy his dairy operation.

Darrell Carlton, a Jersey dairy farmer has had much success with grazing alfalfa. He has grazed for over 10 years. He would take fields for hay for 3 or 4 years and then graze them rotationally as stands thinned down. He began sowing Alfagraze when it first became available

and continues to sow it and is trying Cut-n-Graze and Amerigraze. He likes the fact that he can use these varieties for both hay and grazing. His hay yields and quality have been excellent and he gets the added bonus of good grazing. Maybe I should say his cows get the bonus because they have produced an average of 60+ pounds of milk grazing alfalfa. The cows get the good feed and Darrell gets the good profits. His success can be attributed to good management of his grazing, producing quality hay and silage and doing things timely and right. He says he is approaching 60 and that he plans to reduce his herd from 70 cows down to 50 cows now and put up less stored feed. He feels alfalfa grazing will allow him to work less hard hours and thus let him stay in the dairy business another 10 years.

Roy Reichenbach is a steer backgrounder in the county. He has grazed thin alfalfa stands for many years. He started using Alfagraze four years ago in his pastures and has had great success. His first no-till seeding was engulfed by crabgrass soon after seeding. Most alfalfas would have not survived the competition but the Alfagraze did. Reichenbach feels that with good rotational management farmers could graze all types of alfalfa. However, he says it is much easier with the grazing types as they can stand more abuse from cattle, competition from weeds and stress from the weather and soil.

The Holtzclaws have all but abandoned red clover for alfalfa. They still do freeze seeding which is very risky in late February, but it has worked for them the last four years. Their cattle gains have increased by .4 of pound per day since they switched to alfalfa. They have more pasture than they can handle, so they have had to roll up the excess hay and watch people want to come and buy it for \$90-100 per ton. Bill says their only problem is they can't kill the alfalfa. He hasn't been able to abuse it enough to weaken it enough for herbicide to get a total kill when going to corn. That's hardiness that he really enjoys rather than considering it a problem.

I could discuss several other of our farm experiences, but I believe you can see that our alfalfa grazing experiences have been very successful. Our dairy and beef producers have experienced better production from their cattle and thus better profits. They have learned to not look so hard at the initial seeding price tag. They realize that the longevity and quality of alfalfa for grazing makes it a cheap source of feed for their cattle. We have learned the longer you graze the better your management eye gets so your production goes up with your management ability. However, we also find that yields and returns are very good when you don't do everything just right. I don't like to say it, but you can mis-manage the true grazing types of still have good results. They are forgiving of some mistakes but producers need to avoid those mistakes because less stress means more yield for more years.

We are still learning about alfalfa grazing. We have 9 variety or management demonstrations for alfalfa at this time. We feel it is most important to evaluate varieties under typical farming situations. We are finding that there are considerable differences between varieties for yield and survivability. We believe that some varieties labeled as grazing alfalfas may really be hay types that weren't bred for grazing. They may have characteristics that would appear to make them more tolerant of grazing. But, we are finding that several of these varieties after 1 or

2 years just don't compete with the varieties truly bred and selected for grazing. We are very happy to see Dr. Henning's and others research evaluations comparing varieties under grazing and would encourage producers to make their selections based on the research and field trial findings.

The future looks even brighter. Reports of more and better grazing varieties coming on the market sounds great. Success with no-till seedings is greatly improved which opens up the potential to seed thousands of acres of Kentucky's rolling hill land to alfalfa. That can mean more cattle, more milk, more hay and more profits. Lincoln County dairy farmers are quickly adopting this practice and our beef producers will catch up as beef prices turn to the better.

The potential to expand profits for all Ky. farmers is here now and getting better every year thanks to alfalfa grazing.