

## **Green – My Color of Opportunity**

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Opportunity is defined in the dictionary as “a favorable set of circumstances or a good chance of progress or advancement”. I see opportunity for increasing profit in well-managed, grazed forages. I believe intensively managed, high quality pastures offer the small to medium cattle producer the opportunity to compete with large-scale operations.

Carterly Farm, owned and managed by my wife, Margaret, and me, became a reality in 1988 when my father retired and my brother and I decided to do business independently. At that time we were milking 80 registered Holstein cows (bosses) in confinement facilities with the assistance of one part-time employee. We were renting the 185 acres on which the facilities are located and had just purchased 80 cows, 40 heifers and a used line of forage and manure equipment. Our rolling herd average was over 22,000 pounds of milk.

By 1991, we were as worn out as our equipment because of the amount of labor needed to haul harvested feed to storage and stored manure back to the field. We were feeding everything except dry hay as a total mixed ration in a centerline bunk of the free stall barn. The cows were still producing well, but we were routinely experiencing cows with displaced abomasums and cows in need of foot trimming. We were very aware that changes had to be made, if we were to stay in business.

I had been reading about the concept of grazing intensively managed pastures for a couple of years, but I was unsure if it would really work. After hearing another dairyman who had made the switch describe his experiences, we decided to try grazing on a limited scale. Our goal the first year was to replace the hay in our summer ration with grazed forage. Our experience was so favorable that we have continued to add or improve pasture acreage every year since. We are using one-wire, high tensile to define our lanes and pastures. Buried one-inch water lines, which are drained during the winter months, service most paddocks.

We have seventy-five acres with various grass-legume combinations for use by the milking herd. Italian ryegrass, perennial ryegrass, orchard grass, fescue, brome, red clover, alfalfa, and white clover are present in varying combinations in the paddocks. We have also used brown mid-rib sorghum-sudan for grazed forage during the summer heat. Sorghum-sudan needs to be grazed at a height of thirty inches or less to possess the quality needed by lactating cows. The past two summers we have sown oats in early September following silage corn harvest and grazed those oats from late October until hard freezes cause the oats to wither. Forage tests reveal the oats to have a very high quality with protein above 20%.

Since calcium leaves the farm in milk, calcium is probably the most needed nutrient for the pastures. Other sources of soil nutrients are obtained from purchased grain distributed as manure by the cows, injected manure slurry on tilled fields and composted

manure. This summer we hope to apply thirty pounds of nitrogen to the pastures after each grazing pass.

After a few years of grazing we began to see improvement in the density of the forages. The earthworm population is much higher indicating a much greater level of biological activity in the soil. I expect these trends will continue to improve soil tilth and organic matter.

Tables 1 and 2, which follow, detail and compare feed costs for a grazing ration (October, 2002) and a winter ration (February, 2003). In October, 2002, the milking herd ration consisted of 18 pounds of a customized pellet, 30 pounds of corn silage (10 lbs. DM), 2 pounds of free choice hay, and approximately 100 to 120 pounds of grazed forage (15 to 20 lbs. DM). October's total feed cost per cow per day was \$2.30. The winter ration consisted of 22 pounds of a higher protein, customized pellet, 38 pounds of corn silage (13.3 lbs. DM), 15 pounds of haylage (7.5 pounds DM) and 7 pounds of dry hay. February's total feed cost per cow per day was \$3.29. You will notice in Table 2 that even though milk price per hundredweight and daily milk income per cow increased with the winter ration, daily income over feed costs decreased substantially because of higher daily feed costs per cow. If the average milk price for the year of \$11.67 is used in all calculations, then the daily income over feed costs is reduced even further.

**Table 1 – Feed Costs of Grazing Ration vs. Winter Ration**

Feed Component	Price per Pound DM	Grazing			Winter		
		As Fed Pounds	Dry Matter Pounds	Daily Feed Cost / Cow	As Fed Pounds	Dry Matter Pounds	Daily Feed Cost / Cow
Grazing Pellet	.085	18	17	\$1.44			
Winter Pellet	.099				22	20	\$1.98
Corn Silage	.0375	30	10	\$.38	38	13.3	\$.50
Haylage	.06				15	7.5	\$.45
Hay	.06	2	2	\$.12	7	6	\$.36
Grazed Forage	.02	120	18	\$.36			
<b>Total</b>		<b>170</b>	<b>47</b>	<b>\$2.30</b>	<b>82</b>	<b>46.7</b>	<b>\$3.29</b>

**Table 2 – Economic Comparisons, Grazing Ration vs. Winter Ration**

<b>Average Per Cow</b>	<b>Grazing</b>	<b>Winter</b>	<b>Differences</b>
Daily Feed Cost	\$2.30	\$3.29	<b>\$.99</b>
Milk Price per Cwt.	\$11.09	\$11.87	<b>\$.78</b>
Daily Milk Income	\$6.76	\$7.12	<b>\$.36</b>
Daily Income Over Feed	\$4.46	\$3.83	<b>-.63</b>
Daily Income Over Feed Cost Using Average 2002 Milk Price of \$11.67 per Cwt.	\$4.81	\$3.71	<b>-\$1.10</b>
Feed Cost per Cwt. of Milk	\$3.77	\$5.48	<b>\$1.71</b>
Milk Production per Day	61	60	
Days in Lactation	152	228	
Rolling Herd Average for	20,038	20,408	
Rolling Herd Average for Butterfat	690	719	
Rolling Herd Average for Protein	594	611	

In addition to the easily calculated advantages in feed costs with the grazing ration, I have seen other benefits to grazing. Improved cow health, longer productive life, lower stress levels for cows and people, improved heat detection, fewer feet and leg problems, and less wear and tear on equipment are some of the noticeable changes that have occurred with grazing.

The past ten years have been very challenging, but rewarding, as we have been learning to intensively manage high quality pastures. Some say that grazing is easy, but I disagree. Creative and flexible thinking are necessary to make this system work. I have found that every factor of production cannot be specifically controlled with grazing, but the opportunity of increased profitability is real when I take advantage of green, highly digestible forages harvested naturally by the cattle. Green is my color of opportunity. It might be yours, too.

This issue is sponsored by the **Wayne County Beef Cattlemen's Association, Grazing Systems Supply, Artesian Farm, Oakwood Farm, Paul Wilson, the Switzerland County Soil and Water Conservation District, the Franklin County Soil and Water Conservation District, the Fayette County Soil and Water Conservation District, and the Orange County Cattlemen's Association.** Many thanks go out to these organizations, individuals and agribusinesses for their interest and support of this educational grazing activity. The mailing list is now **1572** with an additional email group of **42**. The **Midwest Grazing Conference** will be held for two days in January in southwest Indiana. The **Northern Indiana Grazing Conference** will be held in Shipshewana on **February 6**.