

FORAGE AND GRAZING... NO-TILL PROFITABLE

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The need to change is a prediction of the future, not a judgment of the past. I copied this off the wall of a successful man's office.

Yes, we can change and shift our paradigms and attend meetings and read and visit and do research and demonstrations and.....

Wonder-what will this change cause or do for or to me. Success comes in many forms. The great Wayne Gretzky has a success formula: "I skate to where the puck will be, not where it is now." How do we become profitable? We plan our profits against our goal. How important is the goal? All important! Once while working with a farm family, they told me their goal was to "get out of debt". I told them I could do that—sell the cows—sell the machinery and sell the land—and then they stopped me. "But we still want to farm." So, the goal was manageable debt and some profits, not no debt and no farm. As world class no-tillers, Duane Beck tells me you can grow anything. So, what is the problem? I see two problems (1) does the different crop meet your personal goal, and (2) does the new crop provide profitability? An aside. It has been said that to learn something new—read an old book. Here are 3 old books of value:

1. Malabar Farm by Louis Bromfield
2. Grass Productivity by Andre Voisin
ISBN: 0-933280-64-5
3. Plowman's Folly by Edward H. Faulkner
ISBN: 0-933280-43-2

Here is a new book of value:

1. Holistic Management by Allan Savory
ISBN: 1-55963-488-x

The folks in New Zealand read the old books-revolutionized their cropping and grazing and we copied their system of "intensive grazing" for our grass-based dairies. Another book of value to cropping is:

1. The One Straw Revolution by Masanobu Fukuoka
ISBN: 0-87857-220-1

First things first. Here is the holistic management model (simplified) as developed by Alan Savory.

In order you need these steps.

Step 1: Identify the people, resource base, and money currently available.

Step 2: The people create and write out their holistic goal. Note a singular goal with 3 Statements:

1. Quality of life
2. Production that provides quality of life*
3. Future resource base description:
(land, technology, advisors/researchers, customers, neighbors)

*A crops farm-statement would include profits from the production and marketing of agronomics crops. See how profit is planned...more later.

Step 3: Test decisions against the goal. Does this action move us toward or away from our goal?

We look at the triple bottom line: biological, sociological, and economic sustainability. Holistic managers use seven testing questions to arrive at the triple bottom line. Society and culture is always relevant in rural communities. Neighbors all watch and evaluate their neighbors. Remember the "I farm ugly" jingle and caps? Will my neighbors accept my new enterprise?

Using this model we have seeded most of our tillable land to permanent forage for grazing. Our wealth-generating question is: "What today is impossible to do, but if we were able to do it, it would fundamentally change the way we do business? Winter feed costs often are the difference between profit and loss with cattle. I have looked at many ideas used in Canada. (We have 2 children, a son-in-law from Sask and a daughter-in-law from Manitoba. How about that contribution to NAFTA?)

Our cowherd has bulls turned out on August 4 and calves start on May 15. Most of the winter these cows are hardly P.G. so nutrition requirements are easy to meet. The goal is to graze as long as possible using standing stock piled forage. Swathed feed that is grazed in the windrow, and finally bales grazed on the land. Yes, we are working in drought proofing just like no-tillers. Keep the soil covered etc. But, our moisture is not always predictable so yearlings are the shock absorber. They can be moved and sold easier than cows. (Multiple cropping or enterprises.)

How do you measure dollar return from grazing enterprises? Here is an example of tillable land seeded to Indian head black lentils (20 lbs. @ 30 cents, seed cost of \$6 acre). Inoculate, weed control and test phosphorous. Seeding was early May and grazing in August.

VALUE OF GRAZING?

100 acres for 130 cows for 2 months. 130 cows @ \$15 per AUM x 2 months=\$3900.
 \$3900/100=\$39 per acre gross as pasture rent.

Or, what really happened?

$130 \text{ cows} \times 60 \text{ days} / 100 \text{ acres} = 78 \text{ ADA}$

ADA is animal days per acre. So each acre supported 78 cow/calf pairs for one day. The calves gained at least 2.5 lbs per day.

$78 \text{ ADA} \times 2.5 \text{ ADG} = 195 \text{ lbs beef per acre}$

Sell calves for \$80 cwt

$195 \times .80 = \$146.25 \text{ acre}$

This ignores the cow condition. They were in excellent shape from green grazing. Also, how much nitrogen was fixed? 20 up to 50 lbs per acre @ .25 is worth \$5 to \$12.50 per acre. Note: This is in 12-inch moisture world.

The swath-grazing example: 84-bushel oats, cut at beginning of kernel development. 100 acres, 180 cows for 70 days.

$180 \times 70 / 100 = 126 \text{ ADA}$

Value @ \$1 per day...\$126/ acre. Neighbors evaluation: "Now all his shit is in windrows."

The ultimate no-till system: cows on grass. Would you believe that is the title of an article by Russell J. Lorenz in the November 1983 North Dakota Stockman Magazine. Russ Lorenz and George Rogler had 79 years of research combined between them in 1973. This table is for their fertilized work on crested wheat grass.

TABLE 1				
Fertilizer Treatment				
Ten year average	No Nitrogen	40 Pounds	80 Pounds	Alfalfa Crested Wheatgrass
Pounds of beef per acre	100.7	168.8	176.3	135.4
Daily gain per animal	2.66	2.63	2.53	2.82
Acres required per animal	0.97	0.62	0.50	0.88

We graze lots of crested wheat grass. My students know that my special list in life begins with: number 1-wet toilet paper, number 2-crested wheat grass, and number 3-could be you. We bought a farm of crested wheat (next door). I traveled to Wisconsin to a dairy grazing conference. The lesson they taught was: "Bite the grass so it grows sideways not up to form the seed head." So-o-o—we fenced 40-acre paddocks and grazed up to 400 steers or 350 cows at one time. They moved often.

Grazing and grass growth go together:

	Fast Growth	Slow Growth
Re-growth	3 days	10-15 days
Recovery	30 days	60-90 days

Re-growth and the second bite of green growth will damage the plant. So, get on and get off. Recovery is when the plant has enough time to re-grow and start the process of storing energy below ground.

A soil building note: Louis Brumfield in Malabar Farm stated the fastest way to rebuild worn out farm ground was to plant grass and pulse graze with dairy heifers. Gene Goven of Turtle Lake, ND had a plan to on purpose set his combine to throw over some extra grain. He then grazes and regrazes the fall growth. Surprise-surprise- the fields that were grazed-regrow-grazed-regrow until freeze up had faster and more total increase of organic matter than fields where sweet clover was plowed down. Great things happen at the mycorrhize level if we allow or create the condition by management. Oh yes, profits. Gene found that in good years and poor years, the value of this grazing equaled one-half the value of his crop.

Back to the crested wheat. We have produced and harvested 30 up to 85 ADAs per acre. Lots of beef.

Another Canadian copycat by us, alfalfa and meadow brome grass seeded on tilled ground. The learning curve of not bloating and killing the stock is less steep than with pure stands of alfalfa. Yearling steers can be stocked at 1 head per acre for 60 to 80 days. They gain over 2 lbs per day. This produces 120 to 160 lbs of beef per acre. (Conservative). This same ground produced an average of 25 bushels of spring wheat.

What is the value of gain on stocker yearlings?

Sale	850 lbs @ \$.80=	\$680
Purchase	450 lbs @ \$.95=	\$428
Gain	400 lbs	\$252

$\$252/400=.63$ value of gain

How about the good year?

Sale	850 lbs @.80=\$680
Purchase	450 lbs @.75=\$338
Gain	400 lbs \$342

$\$342/400=.855$ value of gain

So those steers grossed \$75 to over \$100 per acre. The exceptional year of the cattle cycle was over \$125 per acre. Why do I need or want a combine?

THE PRINCIPLES:

1. Plan grazing based on forage plant re-growth (not the calendar)
2. Keep soil surface covered and avoid bare ground
3. Fancy cattle may look good, but not be most profitable (we do graze next to the highway)
4. Fertilizer "N" can be a major wealth generator
5. Have a diverse selection of forages to spread and extend the grazing season
6. Remember: Plants like to put down roots and grow in one place while animals like to walk around and graze. Your job is to allow these natural instincts to coincide.

[Return to Table of Contents](#)