

The Grazing Chart: A practical management tool to improve decision making

Mr. Troy Bishopp aka The Grass Whisperer

Bishopp Family Farm, Deansboro, NY & The Upper Susquehanna Coalition, Hamilton N.Y. Regional Grazing Specialist

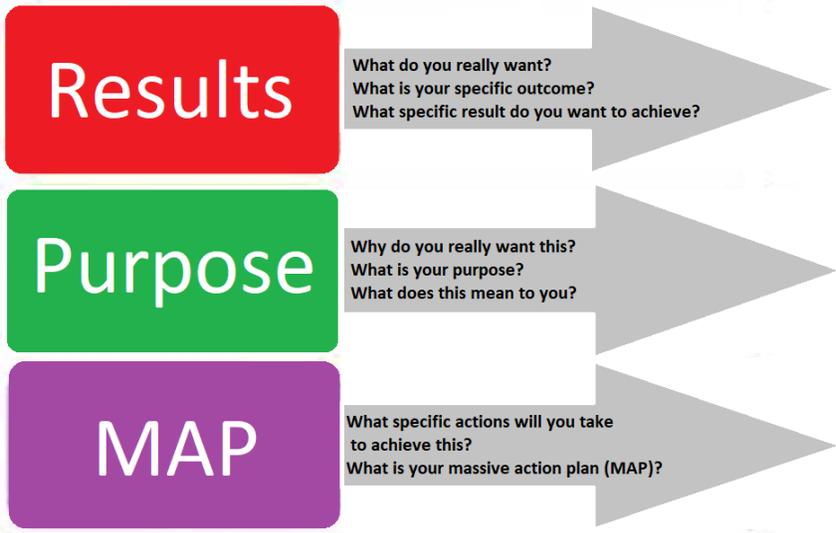
As a veteran grazier, I'm concerned about the phrases, "The 300-year flood, Peak Soil, Peak Oil, Climate Change, and The New Normal" frequently heard in the news. Should I discount them as just anomalies, or should I be planning on how they will affect my grazing operation?

For me, it boils down to a simple concept; keep the soil covered with perennial, highly diverse, biologically active pastures. However, it has taken me 48 years of farming to become a true believer and holistic planner in this. It's rather embarrassing to admit I missed this mark as a youth while continually being stumped by a grazing system always headed in the path of what Andre Voisin termed; untoward acceleration, where each successive grazing period provides less forage and the rest period is shortened until the rotation collapses. Grazing Consultant, Jim Gerrish, says grazing too short is the biggest problem in pasture production.

With hairline receding and the prospect of a sixth generation farming here, I found the "ah ha" moment I needed in 2012 during Hurricane Irene and in the mirror. The forces came together after a long dry spell followed in earnest by a 5-inch rain. As I flashed a picture of my swollen, muddy stream, I turned the lens to wipe off the rain and I caught my reflection, this was my fault.

This single event of losing topsoil put me on the path to become a better grazier and in turn a better land manager. But I needed a better plan, more measuring and monitoring and long-term goals. I am lucky to live in an era with access to knowledge from influential grazing notables; Andre Voisin to Newman Turner, Darrell Emmick to Jim Gerrish and Allan Savory to Greg Judy to name a few. This has led me to think about grazing in a more holistic, management-driven style predicated on a triple bottom line mentality and stop blaming the animals for over-grazing.

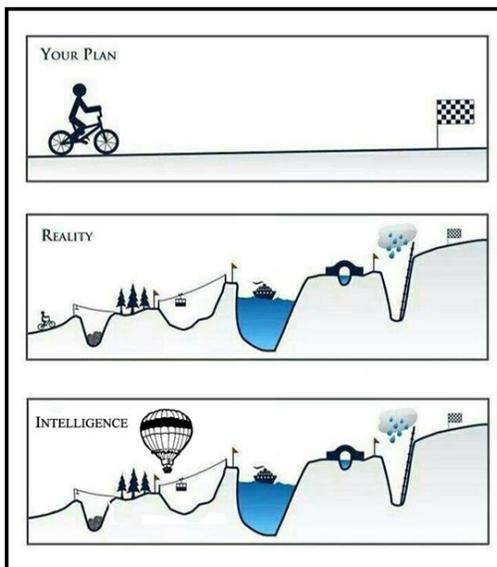
“Don’t Plan ----- Create”



“Create the farm you want” is a quote that I like in approaching the upcoming grazing season. Like any good game of chess, it starts with a tactical plan. I start by planning (hypothetically) on my 12-month grazing chart (in pencil) before I go into Mother Nature’s domain, around specific financial, production, environmental, and family goals. I plan in recovery periods, certain grazing strategies for each field, expected dry matter intakes, and plan back from major events such as vacations, droughty times, breeding, bluebird fledging, frost and stockpiling dates. This futuristic decision-making and constant monitoring allows me to think deeply about what’s ahead and works nicely with my experience and gut feelings to make management changes sooner and level out the new normals of weather.

Again in 2016, my farm teetered between a D1 and D2 drought (Moderate to severe) on the US Drought Monitor scale most of the summer which tested my 26 years of grazing experience and thinking skills. Although I must admit to being up for the challenge, at times, it was a highly stressful endeavor to manage a newly started organic dairy heifer custom grazing business model without much snow or rain. Surprisingly, what saved me during this trying time was a 4-dollar grazing planning chart hung on my office door.

I know what you’re thinking; a piece of paper (and not money) is credited with getting a farmer through the grazing season. Yep, but let me elaborate a bit. This change of man-aging through using better decision-making tools has been a long time in the making. It has come about at my own expense, literally, as I dropped some coin to attend holistic management grazing planning workshops and to travel around visiting other successful graziers throughout the country. I also say expense because I have missed so many opportunities to manage grass more effectively, but my pride, the lack of monitoring, and keeping rec-ords kept me in observational mode instead of be-ing a strategic grazier.



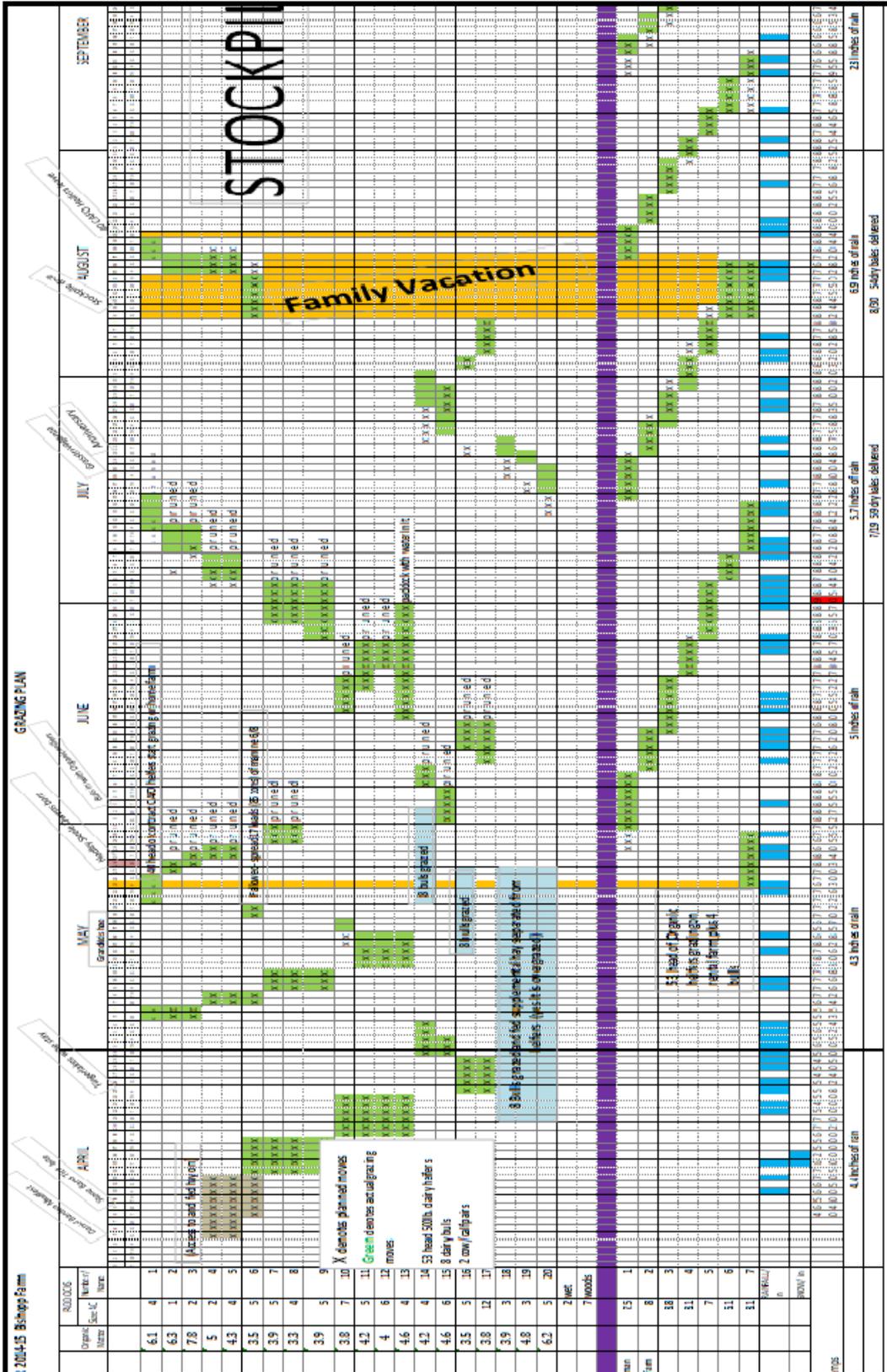
I know what you’re thinking; a piece of paper (and not money) is credited with getting a farmer through the grazing season. Yep, but let me elaborate a bit. This change of man-aging through using better decision-making tools has been a long time in the making. It has come about at my own expense, literally, as I dropped some coin to attend holistic management grazing planning workshops and to travel around visiting other successful graziers throughout the country. I also say expense because I have missed so many opportunities to manage grass more effectively, but my pride, the lack of monitoring, and keeping rec-ords kept me in observational mode instead of be-ing a strategic grazier.

On a trip to Missouri visiting Greg Judy's farm, the light really clicked on for me. As the "microbe mes-siah" was showing me all the exciting things that he was doing on the farm and quoting day's recovery periods and such, I finally asked him to stop yack-ing and show me how he makes decisions in graz-ing management. After the shock, he ushered me into his office where his wall was covered with 3 years of planned grazing charts like a military war room. He knew where he was, where he was going, and where he had been all in a cohesive chart com-plete with paddocks, rest periods, weather info, animal dry matter calculations and major events identified like vacations, calving, breeding, and stockpiling. It is exactly what I needed. At that moment I thought, I have got to get busy with this kind of management instead of always chasing grass or worse, losing money.

This led me to Allan Savory's Holistic Management Handbook with associated grazing charts, but like many farmers, I had to tweak the chart to fit my needs and environment. At first, I used it mostly as a visual diary of how long I was in a paddock, but after the first rotation, curiosity had me planning ahead a week, then a month, then several months – all in pencil of course because we all know grazing plans are always in flux. With practice and feedback from other farmers who were also trying the tool we refined the chart down to its simplest form through a Northeast SARE 'Professional Development Project' graz-ing training grant. After three years of planned grazing management monitoring under my belt, the true test first happened amidst the 2012 weather freak show.

Invaluable in this process is that you need to know what you're managing towards, know your paddocks and acreages, know your forage and animal needs, and know your finan-cial picture. To sum it up, you need a whole farm conservation plan before you can use this tool effectively. In my case I also have a nutrient management plan that tells me where to focus fertility for improved soil health. The hard part is just starting the process and learning that you can indeed erase the pencil marks of future planning as actual will probably be somewhat different.

From there I plugged in known forage inventory from all paddocks and what recovery per-iod that I wanted to achieve given the heifer's forage demand. I also determined known decision points in the margins above the calendar like my daughter's wedding, speaking gigs, concerts, vacations, stockpiling and frost dates, breeding window, conservation pro-jects, grassland bird fledgling dates, and paddock specific grazing management tech-niques to name a few.



Grazing Chart for the Bishop Farm, fields above lavender line stockpiled to allow grass to grow ungrazed for grazing later in late fall and winter.

On the bottom columns are places for monitoring moisture and temperatures which help to predict forage growth. How many keep rainfall records for future planning? Since this is a living document all aspects that would help a grazier make critical decisions are valuable. Most graziers follow a rather cyclical schedule in moving animals through the paddocks at first but as paddocks or fields are dropped or added for harvest the dynamics of keeping a visual forage inventory is crucial. Your brain may hurt with all the hypothetical scenarios you may plan for, but you must keep asking yourself, "What if"? What if it does not rain in the next two weeks? When do I supplement? How do I get more rest on the paddocks? When and where do I utilize a sacrifice area? How long do I want to graze into winter? Is there money in my account and what is my borrowing power? Do I have a destocking strategy? Several other questions may come to mind as well.

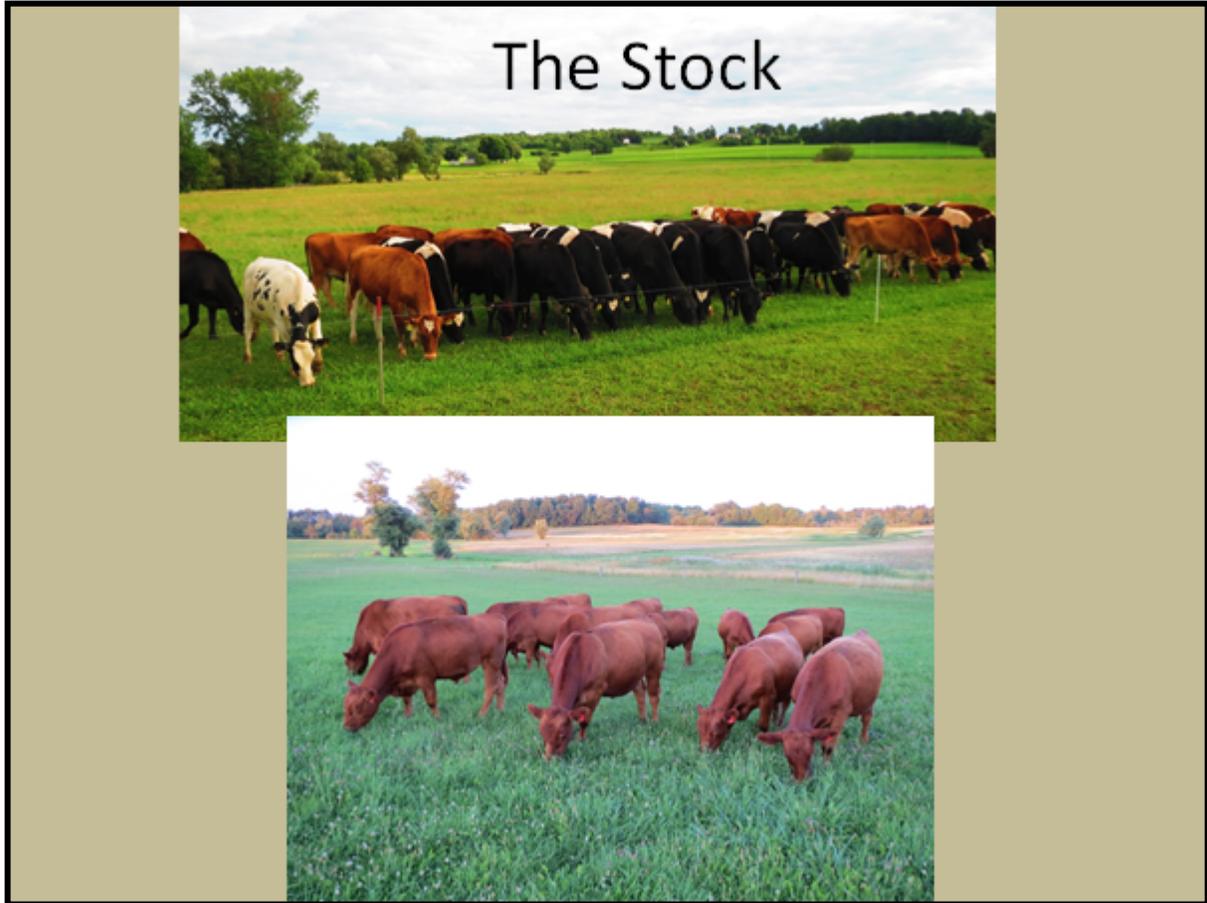
For me, this visual chart reduced stress by constantly informing me of conditions on the ground to form battle plans weeks ahead of when I needed to speed up or slow down the rotation. In 2016, there was a period from June 8th to July 22nd when we had 16 days over 90 degrees and a ½" of rain. About June 24th I made a big circle on July 30th that said, "Decision day" for considering whether to supplement with hay which was still 30 days before I ran out of grass. On July 23rd it started to rain and for the next 21 days we got over 5 inches of rain (not all at once as in 2012), and I never touched the emergency hay fund, but it was planned anyway.

By monitoring for longer recovery periods and maintaining higher residual levels, when the rain finally fell, it popped back like springtime. However, I planned for it not to rain and was rewarded for my conservative stocking rates. You are a hero when it all works the way it is supposed to.

Beef Magazine's contributing editor, Troy Marshall, noted a good plan helps protect personal health – physical, relational, mental, and spiritual. He poignantly mentioned, "Drought management puts a premium on acting early, being willing to adapt, and being creative. The best news is that it will rain again; it is nearly as inevitable as drought. Drought management is largely about employing appropriate risk management techniques."

You're probably thinking, easier to plan than to implement. But the impetus for the organic farmer is if you run out of grass, you are out of options. We have got to get in the mindset that it takes grass to grow grass and stop fearing about wasting a little grass if you want top performance for your animals and soil. I do agree that the forage should be trampled, harvested or clipped sixty days before the first frost to enable possible extended grazing of rested plants.

My observations over 32 years of grazing on our farm are this; rain now comes down in buckets and we need to catch it all for the uncharacteristic dry periods that are happening. On our farm, the shorter, always vegetative sward of plant species of yesteryear has given



way to a taller, more mature grazing sward with a higher grazing residual (4") and in turn longer rest periods, averaging 45 days for 2016. This has changed my naturalized sward into having a more prairie-like composition which have deeper, stronger roots and puts more litter on the ground to feed the soil microbes.

Having stronger, more vibrant plants has also increased our grazeable days by two weeks in the spring and two months in the fall. This strategy in conjunction with stockpiling has raised our farm's organic matter from 3.4% to 4.6% over the last three years which has essentially drought-proofed the farm while sequestering the big rain and adding resiliency to the whole farm system without buying expensive inputs.

I've been monitoring Brix levels of plants and the cows that eat them and continue to see higher energy levels in more mature swards later in the day especially in young blossoms and leaf tips. To garner more of this production, I move animals 1/3 of an acre in the morning and 2/3 in the afternoon. The difference can be 7 brix in the early morning and double that by 3pm. Capturing this free energy just takes moving a fence. I'm also hearing many farmers having good success spraying raw milk on pastures to raise the energy.

Grazing for energy and not towards Jerry Brunetti's "funny proteins" has been a learning curve, but also good for the wallet as it takes less expensive grain and balage to even out

the animal's diet and production. At the same time, it allows the plant roots to rest and add mass in the soil which stimulates soil life and increases water-holding capacity.

Probably the most often overlooked questions of grazing management in the new normal are: What are you managing towards and why? Without tangible sustainable goals, you may fall prey to buying prescriptions that fix problems but do not address root causes.

In my humble opinion, making money from grazing is absolutely about keeping the soil surface covered with diverse swards and soil life collecting solar energy while sequestering moisture and carbon. One only must remember 2016 to see this is a great strategy for the future.

How do you get it done? Create farm family goals that incorporate the triple bottom line, plan out in detail how to make these goals happen, question everything, measure and monitor progress often, join a mentoring team, record your results, and most of all have fun honing your grazier's eye because the world needs more pasture-based systems.

Bishopp Family Farm Goals

We strive for a stress-free life. We want our topsoil covered by diverse pastures harvested by animals, thus recycling solar energy and activating biological life to provide a sustainable profit. We want to regenerate our community with local food. We want to create a savannah for wildlife. We want to create a place for the next generation to thrive.

With that said we'd like to make a profit

Here's our Custom grazing numbers.

Grazing and wintering 56 head plus 7 bulls = \$21,304
90 day graze with 40 bred conventional heifers = \$2582

Total Income \$23,886

Total Expenses \$11,680

Net ± \$12,206 part-time

\$1.20/day grazing versus \$2.80 feeding hay \$64/day savings per 40 head

In the final analysis, simple grazing management decision-making tools and using your noggin may be more valuable than increasing outside inputs to solve the weak links in yours and my grazing operation. If you are a visual learner like me, a 4-dollar piece of paper might be just the ticket to get through another weather event. Remember to stay focused on the things you have some control over. Focusing on the things you have no control over is a waste of time and energy.

For more information on the grazing chart and its planning process, visit Onpasture.com or contact Troy Bishopp, aka 'The Grass Whisperer' at the Madison Co. SWCD (315) 824-9849.

