

AN AGGRESSIVE APPROACH
TO CONTROLLED GRAZING

Tall Grass

MOB STOCKING



by Joel Salatin

Prepare to be shocked. Most of us controlled grazing aficionados have been grazing the forage when it's *too short*. In the last few years, we switched our farm to a much taller sward, and the results are nothing short of remarkable.

Question: If you were cutting corn silage . . . Wait, let me rephrase that, since hopefully very few *Acres U.S.A.* readers make corn silage: If your *neighbor* were cutting corn silage, how mature would the corn be when it was cut?

Think about corn as a glorified grass. It is, you know. Would it be cut before tasseling? Before an ear formed? Of course not. Why? Because corn silage, as a fermentation product, needs starch for the process. Fermentation is all about sugars. And it takes time for a grass to move from protein to sugar.

Imagine in your mind's eye that corn plant ready for silage cutting. The tassels are completely shattered. Ears are full and plump. The leaves are green, but the base of the stalk has already turned brown, perhaps up 12-18 inches from the soil horizon. The plant is clearly mature, not growing any more. At all.

Now imagine, in your mind's eye, what orchard grass, switchgrass, fescue or bluegrass, would look like at that same stage of maturity. Would there be seed heads? Yes. Would it be browning down at the base of the tallest stems? Yes. Would it be too mature to graze? No. In fact, it would be *just right*.

By now most farmers and officialdom — I can see you through these pages — are jumping up to object in protest, “But, but, but, that’s too mature! Everyone knows you need to graze early while the plant is completely succulent, like candy. And hay should be mowed in early boot stage, before the seed head appears.”

Yes, I know, I know. I’ve heard it all before. In fact, I’ve even proclaimed it all before. And now I believe it’s a bunch of bunk.

How did I arrive at my change of mind? Several years ago a neighbor asked us to rent his farm. It was more than twice as big as ours, so it moved us from our normal 200-head mixed herd to more than 400.

Because the previous renter dilly-dallied exiting the place, we could not get fences and water lines installed before our spring busy time. Everything had to wait until later in the season, and by the time we actually moved cattle over there, it was June. By the time we grazed around the last fields, it was nearly September.

You can imagine what those fields looked like. The forage was bleached brown. The understory was full of second-growth, greener grass. It was like a jungle, and nearly impossible even to walk through. Neighbors were confident this landlord had made a huge mistake in renting his farm to us. It looked like a wreck from the conventional grazing mindset. No matter that these continuous-grazing neighbors, at that time of year, had scalped their pastures to the soil level and their cows were actually losing some weight every day, unseen to the naked eye.

We went into that jungle with a mob of 400 head, giving them a smidgen more than 1.5 acres per day. Every day we moved them to the next paddock. The grass was so rank we had to bush-hog the crossfence lines just so the cows could see the fence.

In 24 hours, after being mob grazed, those paddocks had so little standing forage that a mouse would have to pack lunch in order to get anywhere. The cows didn't eat *everything*, but what they didn't eat, they stomped, chipped, and shredded onto the soil surface so com-

pletely that not a stem was left standing. Oh, did I mention that this farm had thistles? Lots and lots of thistles. Not one was left standing after this mob did their thing.

But more interesting to us, as herds-men, was the way the mob responded. This was no longer a group of individuals. The mob became like a giant amoeba. When they were hungry, not an animal mowed or bellowed. They just stood, patiently waiting for us to move them into the next paddock. Even if it took a couple of hours to set things up, the whole mob just waited contentedly, chewing cud, while we worked around them.

And their manure, the key to monitoring animal health, was perfect. If manure is splattery, like sheet cake, it indicates too rich a diet, like candy bars. If the manure consists of "cookies" — little hard disks stacked up — it indicates too coarse or fibrous a diet. What you want is a "pumpkin pie" — perfectly round, slightly sunken in the middle and raised on the edges. That's exactly what this manure looked like. Of course, most of the clumps were splintered and scattered by hoof action.

The animals looked extraordinarily fat. They possessed a bloom that we were unaccustomed to. We expected them to fall apart and were concerned about how much of a wreck we could stand as we freshened up these rank fields. What we got instead was a remarkable performance from the stock and a landscape change nothing short of miraculous.

Subsequent grass growth resembled what follows an application of chicken litter. The dark-green, rich sward indicated a flush of biological activity stimulated by the infusion of lignified carbon.

We had never seen this response after grazing grass at what is considered the appropriate length.

As it turns out, others around the world, taking controlled grazing to another permutation, have discovered the identical response we witnessed, from Chad Peterson in Nebraska to Greg Judy in Missouri to Abe Collins in Vermont. The new term is *Ultra High Stock Density* (UHSD) grazing, and it is definitely forming the ragged innovative edge of controlled grazing.

The general consensus, articulated perhaps best by Terry Gompert, Extension forage specialist in Nebraska, is that bovines need starch more than protein. After all, these are walking fermentation vats, and fermentation thrives on sugar. Pigs and chickens require far more protein than bovines and other herbivores.

Young, vegetative, succulent, tender grass blades are high in protein and low in carbohydrates, or energy. As the plant matures, it concentrates energy. We follow that principle carefully in selecting corn maturity for good silage fermentation, but generally throw the same concept out the window when it comes to harvesting our forages at their energy peak. That is why I like the corn parallel. It shows easily and graphically the disconnect between how we harvest corn and how we harvest grass for maximum energy. The goal is the same. Both are feeding a fermentation process; one inside the cow and the other outside.

These days when people ask me what I do for a living, I reply: "Mob-stocking herbivorous solar conversion lignified carbon sequestration fertilization." Certainly not as concise as "organic," but definitely more apt to stimulate a lively conversation. All we're trying to

These days when people ask me what I do for a living, I reply: "Mob-stocking herbivorous solar conversion lignified carbon sequestration fertilization."



do is mimic the grazing patterns of herbivorous herds throughout the world. By cutting around that pattern, like a template, and placing it over our commercial domestic production acres, we tap into all the soil-building and carbon-cycling principles creating fertility in the perennial grasslands of the world.

Utilizing forages higher on the physiological expression point has increased our cow-days per acre by up to 50 percent. In practical terms, this means grazing a given square yard only three times per year rather than six times per year (in our climate). In a brittle climate, it might mean grazing a paddock one time per year rather than two. The point is that longer rests punctuated by more violent herd impact generates more solar-accumulated biomass that can either

grazing is a primal instinct that herbivores must relearn. When we buy calves from a neighbor, they find the mob highly stressful at first because the only time they've ever been that close to other individuals is in a corral — and normally the corral is not a place where enjoyable things happen to cattle.

During the newcomers' assimilation phase, it's helpful to either reduce the mob size or give extra space for a few days while new introductions become comfortable being close to other individuals. Aggressive grazing soon becomes normal behavior, however, and this creates two positive consequences.

First, the animals become less selective. They don't have the time or opportunity to be picky about which plants they eat. The result is more even mowing

its fermentation tank, the sooner it will lie down and begin chewing cud. The mob encourages this rapid engorging and actually makes the animal more productive.

Perhaps the most beneficial result of this ultra-high stock density is the organic matter added to the soil via fully developed root mass that naturally occurs when a plant reaches phenotypical maturity. Adolescent plants do not form the pounds and miles of plant material below the soil that mature ones do. The mob shocks the plant into shedding much of that mass to concentrate (self-prune) the energy reserves into sending forth new shoots. The resultant flush of organic matter dwarfs even the above-ground manure and urine load.

This pasture pulsing, very much like a heart beat, is like CPR for the soil and its myriad inhabitants. Plants self-direct their bilateral symmetry above and below the soil horizon. When I see that sea of waving tall forage, in my mind's eye I see an equal sea of root hairs loosening and feeding the soil food web. It's a wonderful picture.

Now I know why Allan Savory and the wonderful Holistic Management folks constantly preach herd amalgamation. A small herd (I'd say anything under 100) simply cannot duplicate the nutrient cycling that is possible with a mob. The larger the mob, the more it synergizes all these positive elements.

Many cattle producers fear amalgamation during breeding because close relatives might breed — but remember, nobody is out separating males and females in wild herds. Plenty of inter-family genetic hanky-panky goes on out there, and the offspring seem to do OK. Nobody is making sure the big buck that bred in western Virginia last year gets moved to Ohio so he doesn't breed his daughters.

Amalgamation creates significant efficiencies because every herd needs a front fence, a back fence, a water trough and mineral box whether it's 20 head or 500. The economies of scale drive down infrastructure and labor costs.

The most serious negative we've seen in mob grazing is that it is less forgiving to the bottom enders. In a smaller herd, lower performance animals don't get

As the plant matures, it concentrates energy. We follow that principle carefully in selecting corn maturity for good silage fermentation, but generally throw the same concept out the window when it comes to harvesting our forages at their energy peak.

be consumed and excreted via manure and urine, or directly decomposed via hoof-stomp shredding.

Rather than thinking we've arrived when stocking at 30,000 pounds of liveweight per acre on a given grazing, we stock at 200,000 pounds of liveweight per acre. In order to do that, the sward must be rested long enough to accumulate massive amounts of vegetation. Some people, such as Chad Peterson mentioned above, are moving the herd multiple times per day in order to increase the mobbing.

Because a mob reduces individuality, it stimulates aggressive, less-selective grazing habits. The cows learn to graze with reckless abandon because whatever is on the plate ahead of them is gone by the time they come back. This aggressive

and a tremendous reduction in normally ungrazed plants. This pushes succession of the good species ahead. Visitors to our farm are often amazed when I tell them we haven't planted a seed in 50 years. No plow, no disk, no planter, no nothing. And yet 50 years ago we could walk the entire farm without stepping on a plant — that much dirt was between the pasture plants. We grew thistles like a crop, picked buckets of dewberries, and could have cultivated broom sedge seeds as a cash crop. None of those plants can be found today in our pastures.

Second, aggressive grazing makes the animals fill up faster. Since an herbivore only makes meat or milk when chewing cud, we want to maximize rumination time and minimize grazing time. The faster the animal grazes and fills

rooted back as much, whether for blades of grass, a spot at the water trough, or a minute at the mineral box. In a multi-hundred-member herd, the weaker animals fall behind more dramatically. We've found that if we run the herd through the corral once a month and pull off the stragglers, placing them in a smaller herd, these animals normally catch right up and can eventually be returned to the big mob. We view them as students needing some remedial education, perhaps a tutorial to catch up.

Of course, running a multi-hundred-member mob creates new pressure on water systems. It's one thing to deliver water to a Rubbermaid tank for 100 head on a hot July afternoon. It's quite another thing to deliver water to 500 head on that same afternoon. Upsizing piping, pumping, and using full flow valves is essential to an efficacious water delivery system. We now use 1 1/4-inch trunk lines and a 300-gallon Rubbermaid tank spliced by the cross fence. That way about five animals can drink at a time, and the bigger tank holds more reserve. The mob, being always close to water, drinks intermittently rather than as a group.

Moving into the next paddock can be a challenge with such a big group, as well. Rather than simply opening a cross fence back to the first portable post and letting the herd file ahead, we use one of the following techniques.

Often we go to the reel end and roll up the front fence as fast as we can walk to let the mob flood forward behind us. The key is to roll up wire fast enough to stay ahead of the first comers, who inevitably turn into the paddock. If you don't stay ahead of them, the late comers will turn around and run along in their old paddock all the way to the handle end of the old front fence (now the back fence).

The other technique, which we use regularly, is to take a bluff fence (non-electrified, highly visible polytape, for example) and make a 50-yard long by 15- or 20-yard wide alley into the new paddock. When I open the gate handle end, I pull it around to the alley and this keeps the flow of the mob going forward rather than doubling back into the center of the new paddock and causing the problem mentioned above — late-comers running along the old side of the

front fence and unable to get into the new paddock. This alley technique only takes about 10 minutes to construct, but saves countless hours in moving time.

One obvious exception to all of this taller grass grazing is early spring, before the grass has time to grow enough. Few models enjoy perfect implementation.



The single most profit-affecting act in cattle rearing is to minimize feeding stored feedstuffs. The less hay we feed, the more profitable the operation. This goal overrides everything in the spring, and we begin grazing as soon as the blades are long enough to eat. Huge paddocks; extremely light stocking and fast moves cover half the acreage in three weeks.

We try to avoid doing this on the same paddocks every year, and the paddocks we graze too early usually become the winter stockpiled areas. What we take away at one time we give back at another time of the year. The point is to be aware when we cheat, and give back extra to those areas later on. Everything should submit to lower hay feeding.

I used to fret about getting the late spring flush grazed in time to make sure it was freshly regrown for mid-summer. Now I don't worry about it. If I don't get to it and it practically turns into brown standing hay, so what! The mob will eat half of it and stomp the other half into the ground. Nature fertilizes the soil with lignified carbon, not green vegetable matter. Leaves don't fall when they're green; they fall when they're brown and stiff. Grass doesn't lodge when it's green; it falls over when it's brown and brittle. Nature feeds soil with mature, lignified carbon that places meals on top, not knifed in or plowed in.

This taller grass grazing frees me from feeling like I just *have* to get on that paddock before it's over-mature. Instead, I simply restrict the mob tighter

and tighter and let it do its magic. A visitor to our farm in June will often see 80 head on a quarter acre for a day. Animals respond beautifully to this management because it simulates the million-head, wolf-surrounded mob of yesteryear.

I am convinced that most controlled grazing, historically, has been touching

paddocks too frequently on too short a forage sward. By reducing the grazings and letting the sward accumulate more biomass in a more mature state, all parties at the grazing table win: earthworms, cattle and farmer. Here's to the next level.

Joel Salatin raises grass-fed beef, pastured poultry, rabbits and more on Polyface Farm, a model diversified farmstead in Virginia's Shenandoah Valley. He is the author of many books on sustainable farming, all available from the Acres U.S.A. bookstore. Polyface Farm will host a special Field Day on July 12. For more information, see page 27 of this issue.

ACRES USA[®]
THE VOICE OF ECO-AGRICULTURE

Acres U.S.A. is the national journal of sustainable agriculture, standing virtually alone with a real track record — over 35 years of continuous publication. Each issue is packed full of information eco-consultants regularly charge top dollar for. You'll be kept up-to-date on all of the news that affects agriculture — regulations, discoveries, research updates, organic certification issues, and more.

To subscribe, call

1-800-355-5313

(toll-free in the U.S. & Canada)

512-892-4400 / fax 512-892-4448

P.O. Box 91299 / Austin, TX 78709

info@acresusa.com

Or subscribe online at:

www.acresusa.com