

"I do not feel obliged to believe that the same God who has endowed us with sense, reason, and intellect has intended us to forego their use." -Galileo

KOW Ruminations



Fully independent soil consulting-agronomy-nutrition. We do dairy nutrition from the soil up.
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Confinement or Grazed, Cows Have the Same Needs –None of Which Are Secrets How to learn how to maintain good production and reproduction *whether on pasture or not.*

As springtime approaches and we are seeing the snowdrifts disappearing here in Wisconsin, thoughts (and questions) always turn to getting ready for opening the gate to new crop pasture (Finally!). Farmers, regardless of temporal attitude "issues," as a general rule, are eternal optimists –always hoping for a better year. This in spite of the elusive "normal year" and continuous challenge of managing the **dynamic biological systems** that they are stewards of. I've spent a considerable amount of time both speaking at and attending various conferences and meetings again this past winter. Attendees are ever in search of that golden nugget of an idea or practice that can be implemented on their dairy farms to either simplify, solve problems or improve performance of their crops / pastures and/or cows –and hopefully result in an improved bottom line and/or lifestyle. As I speak to various groups, **a recurring theme I have is to return to / review / learn the fundamental principles rather than** to seek out that **special product** (fertilizer, seed, feed ingredient, etc.) or **person**. (Some travel from afar to seek out the currently popular *grazing* "guru" for example. I told at least one audience this winter that in spite of the many miles I had to travel to see them, that I was **not that** guru and can only remind them of the basic principles **they must learn for themselves** to better manage and, hopefully, get better results in their *individual* dairy systems [Oh, how that I.Q.

rises with the miles traveled from home! I've considered working on the New Zealand accent somewhat, but fear that I'd completely slay my audiences with it and have exercised restraint.])

All this is not to suggest that there is no value to conferences, but only to suggest that what may be shared at any of them *could be overvalued* if the "nuggets" acquired are not carefully placed into an already *basically* well designed system. New tires and fuel additives are good things, but they can't fix a broken drivetrain. If the engine and transmission are worn out and suffering neglect, there is no substitute for new parts and *preventative* maintenance. Sometimes a complete overhaul is in order. I like to check over all the basic nuts and bolts before I recommend the additives and special after-market add-ons. This prevents a great number of disappointments. The *false hopes* and feed additives (or *special* soil additives, etc.) peddlers or the **special ration formula** promoters will continue to come and go from the dairy management scene –*always taking with them some part of your hard earned dollars, but rarely leaving long term solutions to the root problems they were sought to fix.*

I recently had a dairyman tell me that 50% of the "secret" to success in his business plan was "luck." He owns and

Page 2 manages 400 lactating cows in, what I'd call, a relatively *unsuccessful* confinement dairy (his credit report seems to confirm my suspicion and I don't get excited when I think about what might be involved to troubleshoot / solve the problems –if he wants to hire KOW Association and we want to try). This brings to mind a quote credited to Goethe, “**It never occurs to fools that merit and good fortune are closely united**” . Some dairymen just have a *lot of bad luck* and many of those same fellers, regardless of their management / feeding programs (confinement, grazing or a hybrid of the two), can be sold diet H₂O *at a premium* with the 1/2 truths and outright lies they are willing to swallow. These guys all like the simple “buy-it” solution or **magic recipe**. There isn't one.

As many of our clients may know, I've been a regular contributor to *Graze* magazine for quite sometime now. My part has been to offer opinions and answer questions with two other nutritionists in the “Feeding Forum” feature. I have enjoyed the sport, as none of us contributing get to see how the others respond until the paper is published. My colleagues always provide thoughtful, skilled responses. It's a great challenge to avoid revealing my incompetence. This go 'round (upcoming issue sometime in April 2005), I'm really *stumped*. The question is, “**How do you feed these 80 cows?**” Parameters: *lush* orchardgrass / bluegrass / clover pasture at peak quality (assume KOW TQ designation with 22 to 25% CP) with *good* stand density –quantity *unlimited* (heaven for some graziers). Holsteins. Two thirds calving in Mar-April, 1/3 calved in the fall. Want to maintain a 70 lb tank average (or the *equivalent* from cross-breds or smaller colored breeds) and you have a TMR mixer and corn silage on hand (but are running low –How low? Don't know, but *usually* when a dairyman tells me he's “starting to run low,” he'll be out of it within 2 to 3 weeks). There is a desire to set those fresh cows up right for good reproduction in June. In parlor grain feeding is an option. **What is your ration (specific down to vitamins and minerals)?** (The secret formula??!)

Oh my, how do I respond? This “guru” doesn't do yoga or any special meditations to seek out deep secrets. (Granted, often I must pray because I don't believe all the answers will be found in the *inner self!*) I don't have anything *new(!)* to sell –just the same ol' *boring fundamentals* (although, I always strive to *improve* on both the quality and *clarity* of those recommendations). Hmmmm, **historically I've written on many topics pertaining to the grazing cow which are posted on our website (kowconsulting.com)**. To address this properly, I guess I must “throw in the towel” or “wave the white flag” and confess that **I've got little more to offer**. It may be shocking for some to read this: **It's not all in the formulation of the ration**. Many different *formulations* can feed well if the basic guidelines to meet the **chemical and physical** needs of the ruminant digestive tract are met – and *monitored by biological* feedback from the cow to *ensure* they do not / are not violating *normal* function. **Chemical** parameters are the basics of CP, fiber: starch /

sugar ratio, and mineral / vitamin balance / adequacy. **Physical** needs consider adequacy of fiber length for rumination and proper / *normal* feed passage rate (manure). **Biological** feedback is not limited to dipstick reading (milk), but includes things like cud chewing, rumen fill, and digestion quality of the cow's manure. All this *requires a controlled sequence* of intake of the various components of the ration formula (not automatically guaranteed by use of a TMR mixer and certainly a **major** factor to be considered if the same is used to supplement a pasture based forage program). Finally, of **equal** importance to *formulation and sequence* comes **environment / cow comfort**. While much is considered about the “evils” of concrete in total confinement systems (and it's getting *too much* of the blame for hoof health and longevity problems lately), many of the barn-fed-only guys do a superb job of creating a clean, comfortable and *cool* place for cows to eat and lie down to ruminate. Pasture based feeding presents *significant* challenges *at times* to meeting these *needs*. While *some* heat stress, for example, can be tolerated as an *accepted limiting factor* in *lower cost* grazing systems (this must be recognized as a “*given negative*” to forage intake / nutrition-energy / digestion), it should not be *forgotten* on the day one reviews the production, health, and reproduction data.

Does this mean I'm “down” on grazing? Am I squirming and trying to avoid Joel McNair's question(s)? Do I think he's asking too much to expect 70 lbs of milk and good breeding / reproduction from the hypothetical 80 cow grazing / (P)TMR herd he has described? **Not at all**. I simply think the answer of “yes, no problem, here's the recipe” has to be *well qualified* and this *hypothetical* herd would need to be well prepared (well *before* the gate swings open –evaluated possibly down to the heifer rearing program) and **feedbunk management / environment** (even the green one sitting between the polywire) **would be at least equal in priority / affect to any ration formula proposed**. I find it's **dangerous business** as a consultant to give an **unqualified recipe** because I've walked onto too many farms with cows that have been “trashed” all winter (or the last three years) and that haven't gotten *anywhere near* the feedbunk and environmental care they need to be *reasonably* productive. **How would I feed cows going onto pasture?** The same way I would feed *any* cow: Before you jump to any conclusions go to www.kowconsulting.com and read the following educational guidesheets (or ask your local KOW Associate to provide them) -it's the only way to qualify my answer:

- 1 “**KOW's Dry Cow and Fresh Cow Nutrition and Management Guidelines**” (Two pages. If Joel's herd has enough corn silage left and can come up with enough *low potassium* forage to feed with it, a **good** dry cow program could be put together to *start* the lactation off right. This will have a **significant** effect on milk production and reproduction for the rest of the lactation).
- 2 “**Are You Feeding Your Lactating Cows By the Rules?**” Guidesheet (Two pages of info on building rations based upon judging forage quality. Joel's

- questions about use of corn silage and other *grain* sources are addressed, as well as mineral and vitamin feeding rates –all in a simple format.)
- 3 **“Legume, Leg/Grass Mixed and Grass Forage Physical Evaluation”** Guidesheet (One page. Provides Joel and readers of *Graze* some practical guidelines to estimate potential *digestibility* [NDFD / energy] from a *physical* evaluation –*before* any lab work is done. Supplemental to the above.)
 - 4 **“Yes, You Can Balance a Ration”** Guidelines (Six pages. A more detailed explanation of the above. Walks one through a simple 10 step explanation / guide on how to use the above *rules to formulate* a lactating cow ration, pasture or no pasture -same principles.)
 - 5 **“KOW”’s General Feeding Recommendations For Lactating Cows on Top Quality Pasture”** Guidesheet (One page of quick and to-the-point feeding tips that includes two standard grain mix recipes.)
 - 6 **“Look! Your Cows Are Trying To Tell You Something”** Guidesheet (Two pages. Lists key check points for *herd* behavior and environment as well as how to read the cow’s *biofeedback* and make ration adjustments accordingly [includes *manurology* info].)
 - 7 **“How To Get Cows Bred Back Sooner”** (Two pages. This gives a good checklist of obstacles to efficient reproduction and would help Joel and readers to avoid getting hung up on “special” formulations / additives to enhance the breeding program.)
 - 8 **“Dry Baled Hay –Is It Really That Important?”** (Two pages that explain just why it is –even in a grazing system –to solve those *troubles* with loose manure and high blood urea levels.)
 - 9 **“Your Cows Need More Energy –KOW’s Guidelines From The Soil Up To Meeting Cows Energy Needs”** (Four pages that will help any dairyman think of “energy” as far more than another scoop of grain. Practical application guide. Explanation of why energy *calculations* should *not* be trusted.)
 - 10 **“Is It Wise To Free Choice Minerals?”** Guidesheet (Three pages. The *unedited* version of a past answer to *Graze* magazine’s questions. Includes a listing of targeted / recommended levels of 16 minerals / vitamins.)
 - 11 **“Has TMR Feeding Failed Us? Or Have We Misused The Tool?”** (Three pages. Addresses very important issues about ration formulation for TMR’s and (P)TMR’s supplementing pasture, as well as the importance of feeding sequence and grain control.)
 - 12 **“It’s Impossible To Feed A TMR While Grazing and How To Transition To Pasture Even If You Don’t Have a TMR”** (Two pages. The title says it all. This should address Joel’s questions about proper use / formulation and management of the (P)TMR supplemented grazing herd. This covers the issues of the high crude protein / blood urea problems, *appropriate* grain and protein concentrate feeding levels, *use of in parlor grain feeders* and/or lock-up headgates and heat stress / fly control issues.)
 - 13 **“Your Cows Rumen Is Like a Steam Locomotive, Don’t Derail It . . . ”** (Two pages that emphasize why **sequence, timing, and ratios** of feeding forages and grains –and cow environment / bunk management –*are all interconnected* for success *or failure*.)
 - 14 **“KOW’s Northern Midwest ‘One-Shot’ Pasture Supplement”** (Two pages. A recipe and explanation *and cautions* for feeding *most* of your supplemental grain *and fiber* through a flex auger. *Includes specific vit/mineral recommendations*.)
 - 15 **“Unedited Answers to Joel McNair’s Questions, Graze Magazine”** (Three pages that cover the topics of “one-shot” feeding, concerns about too much protein and addresses a question about how much corn silage [max level] that can / should be fed in a pasture system.)
 - 16 **“A More Sustainable Model For Expansion Dairies In The Upper Midwest”** (Four pages that present thoughts about how grazing can / should be part of the feeding system –with *or without* use of a TMR mixer. Covers ideas on feeding management *throughout the seasons* of the year as well as *mechanically* harvested supplemental forage storage and feeding.)
- This would be just a *sampling* of what is available on the KOW Association *educational* website to better qualify the “yes” and “how to” of formulating *and feeding* a pasture based (or any) ration to promote high milk production, optimum herd health and reproductive efficiency simultaneously. **I would encourage all KOW grazier clients to review any and/or all of the 16 papers listed here before the gate opens this year.** If there be any way the KOWboyz can assist with evaluation and planning, we are eager to serve *all* of our *valued* clients.
- With this, I think the ol’ marine has emptied his last magazine for *Graze* magazine . I’ve nothing “new” left to fire at Joel’s readers that can be of *real* lasting *educational* value in such a brief format. **I leave Graze with an appeal to study the KOW website.** One has to *dig* deeper for an understanding sufficient to sustain real, lasting success. If my colleagues, Karen and Larry, are *comfortable* to venture into *special recipe management*, they are welcome to do so *without* my participation. The KOWboyz are in the business of *educational* consultation *with the requirement to follow through to success in order to keep our jobs with individual clients*. There is no larger entity funding the work of KOW Association (we so appreciate our clients!). If advice given is *not* carefully considered / qualified / *evaluated on farm* -and followed through on -and farmers are disappointed -I don’t need to explain do I? The “grant money” stops . There is swift accountability for results! While we cannot *guarantee* a good outcome, we must go into great detail when protocols and programs are recommended. Getting into the *recipe game* is an area I *cannot* afford to compete in, period. Neither can any serious dairy farmer. There’s always more to it and the consequences of the short-cut, quick-fix mentality, whether it be special **products** or **recipes**, are far too costly. Learn the fundamentals and stick to them –you won’t be disappointed nearly as often. -Semper Fi