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The entire green movement can't stand on its own two feet and the only time anything green ever gets money is when it comes from government." – Glenn Beck (a courageous patriot!)

"This country believes in prosperity. It is absurd to suppose that it is envious of those who are already prosperous. The wise and correct course to follow in taxation and all other economic legislation is not to destroy those who have already secured success but to create conditions under which every one will have a better chance to be successful." –Calvin Coolidge

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Bunker Silos **are Now Destroying the Planet . . . What next?** ☺

What will the environmental progressive *agency do now?*

Before you who own and use bunkers, pits, and piles to store your silage toss this newsletter in the bedding heap, stay with me for a little laugh –and maybe even some *useful* info / instruction. My title comes from an article I read in May 10, 2010, *Feedstuffs* titled "Science sheds light on emissions" by Cliff Gauldin. This KOWboy nearly "fell off his horse" with laughter over the news.☺ To summarize, dairy farms in the San Joaquin Valley of California have been ***required*** *(mandated by regulation*) to install ***manure digester systems*** in order to capture *methane* and other "green house" gases. This since a law was passed in 2004. They (*watermelon enviromentalist's,* green on the outside but *red* on the inside) were blaming them girls for causin' high ozone levels –too much burpin' and gas from the other end. Those ***manure*** *storage ponds* were ***the*** cause of the terrible haze. It was all based upon some little bit of science from 1938 and the powers that be *made 'em* install the **digester systems** –of which *many are* ***already*** *shut down* 'cause they ***already*** *came* up with new / *additional* regulations that **make the digesters too expensive to run!** Well, in the meantime, a little more up-to-date research was conducted and they found out the amount of *"emissions"* coming off the manure holding ponds was "almost undetectable" ☺. Yep! This is collective government action at its best. No supportive *science*, no supportive *economic* system –and *boatloads* of money down the literal poop-hole ☺. If ya wanna learn more, contact Cliff Gauldin directly at CMA Consulting, LLC (ph 816-556-3124, cliff@cmakc.com).

Isn't it time to ridicule? Of course, this is all about the "greenhouse gas" / "climate change" *level* of scientific credibility, so no matter how much *non-sense and corruption* gets exposed, there will always be those committed to keeping the **lie** alive because of the *money and power* involved. Yours truly has written *plenty* about this in past newsletters, so please be tolerant if I go on and on. It's for love of country and farm families. There's *still* some big money that have a *progressive* / socialist dream (nightmare?) of **few** very large (multi-thousand cow) dairies ***replacing*** small business dairy – with *direct financial support* via the carbon tax payments (cap and trade) going into manure digester / methane capture systems. These will be *completely government controlled* (after all, what CAFO isn't?), but owned by

international corporations –by ***definition*** fascist enterprises. Why? Because food *control* is such a very *powerful* tool. Contemplate that a moment. Has this KOWboy ever done anything but "shoot straight" with ya? It's okay to think I'm nutz, but *please* . . . the evidence of the scheme is so very out in the open now. Here in Wisconsin, we just had a big "voluntary" Ag Star conference in Green Bay (4/27-28/10) which ***focused*** on *promoting* ***more*** manure digester systems. Don't get me wrong, all well **<u>if</u>** the <u>free market</u> / **private** investors fund the projects. Unfortunately, this was *sponsored* by the EPA (Environmental ***Progressive*** Agency? Regulations *creeping toward tyranny*?), the USDA (<u>U</u>nrelenting <u>S</u>*ocialist* <u>D</u>estruction of <u>Ag</u>?) and the US Dept. of Energy (ever notice they don't *produce* any?). Conference speakers spoke of the dairy industry being **"*transformed.*"** One of the key speakers was a real "*progressive*" feller by the name of Shonodeep Modak, who *just happens to be* "in charge of ***global*** marketing for *General Electric* ***Energy***." He told the crowd how Germany and *China* were "ahead" of the US. "***Government economic incentives*** are part of the reason behind the many digesters in those countries," "**It's really all about money**." Mr. Modak was quoted as saying (source, *Agri-View* 5-13-10, pg C-6 "Plenty of potential for biogas systems on US farms" by Ron Johnson). Well, **that about sums it up and this should give *everyone* gas** ☺, because it's much *bigger* than "sustainable energy" –cause it ain't sustained without giving up <u>a lot</u> of money and <u>*control*</u> over both the energy and food systems (–specifically dairy in this case, but it's *not* limited to dairy alone). **<u>If</u>** you recall what I've written in newsletters past, this has potential to ***significantly*** increase the cost of energy for **<u>all</u>** small businesses (including dairy), while *favoring* the *very large* <u>*international*</u> (global) corporate businesses (mega dairy business centers?) with ***energy tax money***. I *inform* you of this stuff so you can ***prepare*** **for higher energy costs** (*graze*, etc.). It is now being exposed by at least one *courageous* news commentator (go to www.glennbeck.com and look at "Crime, Inc."). This is about a **global** network of <u>*anti*</u>*-American independence* and prosperity activity and is *tied into the* ***Chicago Climate Exchange***, the proposed **cap and trade** / **tax** (or possibly a name change to the "American Power Act"), current and past Presidential administrations, *various* tax exempt (*money laundering?)* foundations – that even lead back to *America's Dairyland* at the University of Wisconsin, Madison and a man by the name of Joel Rogers (who Beck has called the "great Oz behind the curtain" promoting much that is happening). The future of all this ain't quite like the old children's program, *Mr. Rogers's neighborhood*. Rogers is director of **COWS** (www.cows.org) which *ain't* got *anything* to do with <u>K</u>OW, but *maybe* something to do with milkin' 'em with **<u>union</u>** labor ☺. **This is all the equivalent of the Tower of Babel, so pray it comes to the same end** - but I digress.

> The demand for milk products in the United States could be supplied by 800 farms milking 10,000 cows each. –Steve Watrin, Land O'Lakes, *manager of Dairy Planning*, 3-25-10, *Hoard's Dairyman*.

Well, the researchers did figure out what part of the dairy farms was givin' them hazy skies in California. Them darn silage bunkers / piles ☺. Yep! Please forgive as I gloat over how this simple little report in *Feedstuffs* confirms and supports what this KOWboy has been writing on both the manure digesters and the silage storage problems. The economic viability of <u>*both*</u> manure digesters and ***improper*** silage storage is in question here. **How does silage cause air pollution?** Well, the University of Ca-Davis researchers *think* that there's so much silage *rotting* in the S. J. Valley that it's blowing off too much carbon dioxide (CO_2) and, possibly, methane (CH_4) and nitrogen dioxide (NO_2). (Maybe these *are* foggin' up the valley at times, but they ain't burnin' up the globe.☺ Maybe a "*team of experts*" should *first* go to Iceland to fix that *emissions* problem . . . wonder how *volcanic* emissions compare to silage?) They propose a solution: switch to ***bagging*** silage and it'll cut "emissions" by 90% ☺. Well, I suppose the silage *bagging* salesmen like this answer ☺. *Regulations* could make *sales* easier. (That's what many international corporate *fascists* are hoping for ☺ – government <u>*mandates*</u> ***requiring*** purchase of their stuff all in the name of saving the planet.) Why would scientists conclude a switch to *bagging* would solve the "problem"? Why *didn't* they merely recommend a new inoculant? Was it because the silo-bagger companies contributed research money while the inoculant industry did not? Now-a-days one <u>*must*</u> *question scientific integrity* due to the sway of big money and political agendas –it's reasonable to ask ("global warming" is a fine *example* of science corrupted by money and political agenda –isn't it?). However, I think it may also be reasonable to *consider* some <u>*well established*</u> science involved in the bio-chemistry of silage making.

The *goal* of silage making is *preservation* –is it not? From the moment forage is cut, there's a race with time and *aerobic* (live <u>with</u> oxygen) microbes that begin to ***digest*** the crop. That gas blowin' off is a by-product of ***digestion***. The dairyman, of course, is interested in having anaerobic (live with<u>out</u> oxygen) ***rumen*** *microorganisms* do the digestion "job" –so the energy and nutrients released can be used for productive (possibly even profitable!) purposes. Both pathways of *digestion* are entirely *natural*. It's a very "*green* thing" either way ☺ and farmers should point out to them city folks that no matter *how* the energy / nutrients get *recycled*, it is in the farmers' best *financial* interest to make sure the maximum amount (that is *economically feasible)* finds its way through a cow and back to the crop fields (***education*** **is the answer, not *more* regulation**). However, whenever organic matter breaks down in nature -whether it be in a wet lands preserve or

swamp or from a *natural storage* sink such as coal and oil –it converts that energy to CO_2 and H_2O. Just in case you need a bio-chemistry refresher, plants really *thrive* on this stuff ☺. (Most *farmers* know this, but *uneducated morons believe* these naturally occurring "chemicals" are causing the planet to "have a fever." Actually, it's the opposite. *Farmers observe and know* that the *warmer* the weather, the faster plants grow –using up *more* CO_2 and H_2O.) Unfortunately, *too few* dairy farmers know what happens *in the silo* –or what's *suppose to* happen – the biological process is hidden from view. In spite of *sales "propaganda"*, given the right combination of ingredients / conditions, good (well preserved) silage *can be* achieved *without special additives*.

> ". . . Finally, we come to **storing our forages the right way**. If you look at it, there are 20 different ways to make a silage pit –and countless other theories.
>
> "Traditionally, we have made a **standard push-up pit atop a concrete slab**. This has worked well **except for what we have to pitch off**. This year we're going to try a rollover pile to minimize the amount of **spoil** on top. We hope to see a great improvement on top of our pits." –Brian Medeiros, 2300 cows, San Jorquin Valley, Ca, *Dairy Today*, May 2010. (Emphasis added.)

The first and highest priority is to eliminate oxygen as soon as possible. *It doesn't matter* how you do this, *only that it gets done fast / well*. **Oxygen cannot be tolerated** in silage making –period. Lactic acid fermentation is exclusively an anaerobic process. The reason the California researchers are suggesting the dairymen switch to silo bags is because they *know* the *aerobic* microbes must be choked off –*dead*. They have to quickly end / stop the aerobic digestion process and establish a *stable*, low pH (lactic acid dominated) condition in order to eliminate the end products of that *continued*, more extensive ***digestion***. *Sealed plastic all around the silage mass* significantly increases the *probability* of this goal being achieved. However, silo-bagging equipment, although *a very successful system*, is *not* ***needed*** to eliminate oxygen. What is **needed** is compression and/or moisture to *displace* air (oxygen) and *plastic* or **any** type of oxygen blocking barrier to ***keep it* out**. **The drier the crop, the more compression needed**. This should help us to understand why top unloading tower silos rarely ever have / make the best silage *on the top* and why *well managed* (compressed) balage preserves so well. The same quality of preservation / fermentation *could* be made if chopped or *well compressed* bales were buried under ***heavily weighted, sealed*** plastic. Since chopped forage springs back and is somewhat "juiced" as it is driven over with a packing tractor, it is a *greater challenge*. Nevertheless, ***if*** the l-o-n-g time recommended KOW protocol of *sidewall covering and triple-top-sheeting* is used with 6 to 8 inches of limestone over the top of bunkers, the probability of success goes up *significantly*. I've become an advocate for the porous mesh polyethelene cover material known commercially as **Secure Cover™** (www.securecovers.com or www.afsbagman.com)–in fact have signed up for *dealership* (order through me and KOW clients will get a rebate). This reusable material **protects** the plastic sheeting **while holding it down *tightly*** in place. While the marketers advocate using **only** gravel filled bags to hold it down, I'm of the considered opinion that, especially if my bunker **balage** or drive over ***balage*** system is tried, it should be ***covered*** with at least 6 to 8 inches of gravel or crushed limestone. *Gravel* over this material may require extra effort for removal, but should be relatively easy to brush off from *bales* before feeding – and lower in cost. See the sketches and explanations of the KOW bunker and balage covering methods on the website or ask me for a copy. **It's all about *compression and seal***. Silage preservation has *never* been *or ever needed to be* high-tech in terms of equipment. I offer the *alternative* ideas for ***economic*** reasons. The cost of *equipment and fuel* may *crush* us in the small business dairy someday soon –if you don't agree *it has already* (the basis for my promotion of *grazing)*. A *powerful* loader machine can do a lot of work on the farm, including burying *bales* [or chopped silage] under rocks, limestone or sand. While geologists claim these latter things eventually wear out, they don't seem to depreciate as fast or require the *repair* and maintenance costs of the shiny painted tools.☺ **Some folks pack and seal bunkers / pits / piles as if they don't know how to fix a tire**. While we know that "*one little* hole" still ends up in a flat, the thinking gets discarded when sealing the silo. Why?

The 2nd priority is simply providing **sugar** for *lactic acid producing* microbes to "eat." This need not be *added* (but *may* be –see guidelines on the KOW website or ask for them). The *most important* part about providing sugar is to **make it in the field** and **not lose it** by leaving the forage lying there after it's been cut. The **hay-in-a-day** teaching using ***wide swath management*** is some of the most useful information we've gotten from our forage researcher's in many years (I give credit to Tom Kilcer of Cornell University Extension for his work http://counties.cce.cornell.edu/rensselaer/agriculture). Lay it out wide (85% of standing width) so it can both dry rapidly and ***continue to photosynthesize sugars*** at the same time. This helps to ***concentrate* sugar**. No stem crushing needed for silage / balage making –only the *simplest* sickle bar or disk-type mower is required. (I'd recommend we *revive* use of the ol' *simple* sickle bar mowers, or buy a simple disk type like a Reese. www.reeseagri.com or tigercoinc.com. Ph 800-432-4020, fx 660-645-2214.) **The warmer the night temperature, the sooner you must get it off the field.** Sometimes it's best to cut it in the morning and harvest it late in the day. A hot, windy day usually allows this – target moisture being 65% (35% DM). If you leave your crop" in the refrigerator" overnight (cool night temps), *little* will be lost because microbial digestion and

respiration of ***plant sugars*** will be **greatly *slowed***. This is why it's *easier* to retain the ***green*** *color* of forages harvested very late in the season. However, if you leave it lie on a hot summer night, those *aerobic* microbes are rapidly *feasting* on and belching them planet destroying (☺?!) gases all night long. For the sake of us all ☺, don't do that! That forage turns ***brown*** for the same reason ***anything*** **that gets digested by *anything* turns brown**. No wonder we sometimes complain that the forage turns to *?!!* *before* it's time (before it goes through a cow)! Those ***sugars*** are really <u>essential</u> to *feed* ***lactic acid*** **producing** microbes in the silo. If **sugar** is lost in the field, ***<u>often</u>,*** *the* ***butyric*** acid producers take over in the silo. These ***clostridial*** organisms are *always* present (especially in soil) but do not grow well in lactic acid -low pH. We often end up with ***butyric*** silage when it is rained on <u>or</u> put in too wet <u>or</u> if leached / "juiced" in / through -in the silo. This is primarily due to **loss** / ***lack*** (dilution) of ***sugar*** to feed the lactic acid producers –which also are *always* present (*usually* in sufficient numbers to promote a successful silage fermentation, if we create the other *necessary* conditions). By the way, if the *cow* directly harvests (grazes) the forage, those **sugars** *directly* promote microbial growth in the **rumen** –a *significant* enhancement to ***feed efficiency*** –that we'll consider later . . .

This brings us to **priority #3**: having sufficient numbers of ***lactobacillus plantarum*** **organisms**. While much is made of the "need" for *commercial inoculants*, this KOWboy maintains that the naturally occurring strains are sufficient if priorities 1 and 2 are done well. Historically, researchers have recognized and agreed with this, but the lure of *economic benefits* to ag sales and research has caused a change in perspective and emphasis. *This is why* the "holy grail" of silage making today is you "must" seek out for and inoculate with "research proven" brand X inoculant. This in spite of the fact that farmers can *rarely* see / <u>measure</u> any economic benefits to it! (If you disagree, please show me *your* on-farm *<u>measured</u>* data –not inoculant sales literature!) Don't get me wrong, I'm not totally opposed to adding a few "bugs." **A frosted or rained on crop may benefit**. Some of the new ***buchneri*** strains, although less *efficient* in energy preservation, may be helpful to improve silo face / bunk "life" in **high moisture shelled corn**. I simply tell you: claims are ***exaggerated*** in order to get you to part with your money.☺ Do you want to improve *inoculation without* buying something? Here's a *significant* thing. **Stop mixing *<u>soil</u>* into the forage**. As noted previously, it's a great source for clostridial / butyric producing "bugs" (ideal for compost piles, not silage ☺). If you're running the diskbine and/or rake too low, you're inoculating with *"butyric*neri"☺. . . Hey, that gives me a great *marketing* idea. Maybe the *KOWboyz* could sack up some special dirt . . .

Much is made of *feed efficiency* now-a-days. ***Grazing*** **whenever the weather is cooperative** and **making the best silage possible** is a ***significant*** **part** of improving the feed-in: milk-out ratio. (*Experts* report a range of 1.1 to 1.9 –with an *average* of 1 ½ lbs of milk produced for each lb of dry matter intake.) The next most important thing that can be done is to ***only milk fresh cows*** ☺. . . well, as many as you can. This means you **need** a good breeding / *reproduction* program-which **requires** quality forage and healthy cows with good feet and legs –which **requires** high forage rations –which **require** high quality forage ☺. 'Round-n-'round we go! Crazy as it might seem, there's a lot of emphasis on **ration *additives*** to boost that feed efficiency number lately. Gee, I wonder why?

Gettin' to be a *long* list of stuff that's purported to "*squeeze*" more milk outa the same ration. Various ***enzymes*** and ***microbials*** and ***yeast*** products, which have been around many years, are making ***bolder*** claims about how they enhance digestion. Some claim *adding* **amylase** enzyme will enable the dairyman to feed less corn with similar results. My answer to that is that the KOWboyz have been doin' that *without* the additive for years **by taking advantage of higher quality forage** ☺. The **big** factors for corn digestion are hybrid selection, moisture and particle size. If you pick a softer, amylopectin –type kernel, store it as high moisture and grind it, you'll be able to *measure* the benefits. Some additive marketers claim their "stuff" *significantly* improves / alters rumen pH, to the extent that you can feed <u>much</u> higher levels of corn *without* suffering the consequences of **rumen acidosis**. While Na-bicarb or other buffers have ***proven*** some *limited* benefits in this regard, *I'd recommend skepticism* with the *thimble full of wonder dust* ☺ -although I'll sure agree that **rumen acidosis has a significant negative affect on feed efficiency.** Cows with acidosis exhibit ***indigestion***. If the "*wonder dust*" is being fed and you can <u>see</u> <u>un</u>digested feed passing in the manure –it ain't helpin' much on that feed efficiency number ☺. Companies are also puttin' money into research on "*essential oils*" for enhancing feed efficiency. These are really extracts of stuff in your wife's cupboard: thyme, oregano, clove, dill, cinnamon, hot peppers, garlic, tea tree oil, etc. While I know some of these have anti-fungal / microbial *and nutritional* benefits, the potential payback is slim. You've maybe seen this KOWboy recommend garlic and oregano leaf in calf starter (anti-microbial / coccidial), cinnamon is a great source of ***chromium*** (*maybe* feed some to *fresh cows*?). Hard to make a "push" for stuff like this in these *economic* times. Even the companies promoting additives know they need a *compelling* argument to get farms to use these products. The folks sellin' *monensin* (Rumensin™) have the "leg up" on 'em all 'cause it *reduces methane belching* into the environment, and beside enhancing feed efficiency, it can save us all from certain destruction –"climate change."☺ Somebody really should be lookin' into how it could be ***required*** by the EPA . . . Actually, I think some, many, of these "global" companies are already thinking' about the potential.