

Has anyone ever been told to NOT feed oats? And if so, has the same person ever offered any reason other than that oats are carbs and may make your horse “hot”?

Probably not!

So let me preface this article by saying that, personally, I have suggested oats to thousands upon thousands of horse owners (as have many other nutrition minded educators) and not once can I remember those to whom I suggested such not loving the results. Oats work - despite the rumors!

But let's look more closely at why, and also look at why other feeds may NOT be so great. And let's take a close look at why these commercial feeds may actually be directly related to, and in my opinion the very cause of many of our overweight, cresty necked, insulin resistant, allergic and laminitis prone horses today. In addition, we'll consider why the idea of supplementing either commercial or individual grains, oats or otherwise, with vitamins, minerals, microbials, etc. is critical as well.

So what is bad about oats? Oats like ALL grains are mineral and vitamin deficient. Horses simply can't get the overall nutrition that they need from any grain UNLESS they are fortified. Oats, corn, barley, etc., etc. are all deficient. Today, what farmers essentially use to fertilize is chemical fertilizer. The 10-10-10's or 20-10-10's are only nitrogen, potassium, and phosphorus: 10% nitrogen, 10% phosphorous, 10% potassium. What happened to all the other minerals on the periodic chart that we learned about in high school? To make matters worse, these fertilizers are salt based. Salt destroys the soil over time and makes it very packed, claylike and sticky – AND in doing so kills the earthworms, the soil's true method for oxygenation.

BUT fertilizer sure does make the grass and crops grow, doesn't it? Have you ever thought about how salt attracts water? Alright, now we have nice lush grass and crops or grain full of fertilizer and water.

Doesn't that sound nutritious? On the positive side it does weigh more, looks great and brings more dollars for the farmer despite its lack of nutrition. I don't mean to be critical, but I assure you the ones who are really profiting here are the petrochemical companies selling this junk (not to mention the pesticides and herbicides being sold, because our ground is so sick) and the pharmaceutical companies selling the drugs because we AND OUR HORSES become sick.

With the cost of such expensive farming it is truly a wonder ANY farms are still in business. Since I don't work for a major university who teaches such farming practices (and receives lots of money from such megalopolies), I guess I just spilled the beans! Praise the Lord for the up and coming organic farmers – they deserve your dollar!

OK, so NOW we need to address this hot horse, high carb myth. Now don't get me wrong, oats are carbs! BUT compared to corn which is IDENTICAL to sugar, which is worse? I know you have heard of the glycemic index by now – Sugar has a glycemic index of 100, and corn has the same. That is, a cup of corn will have the same effect on the body as a cup of sugar. Now that sounds healthy, doesn't it? (Oats do have a lower glycemic index.)

VERY few, if any commercial feeds that I am aware of are corn free, and most contain lots of corn at that. Now granted, corn has gone up in price lately because of the alcohol gas that is being made from it, so more than likely you will find corn being used less now than before. BUT what you are also likely to find is that more molasses and other sweetening additives will be used to cover up the other worse tasting grains (or whatever) that will be substituted.

Just so you also fully understand – molasses IS SUGAR. Both cause insulin spikes, subsequent insulin resistance from over- production by the body, hypothyroid, Cushing's horses, etc. Sugar highs (hyperglycemia) and sugar lows (hypoglycemia) are the culprits. Feeding corn and sugar at the morning meal is like us eating donuts and candy for breakfast. These high sugar levels wear the pancreas out. The pancreas produces insulin to handle the sugar and then later in the day the sugar low causes tremendous stress on the body because the body is starving to death. This hypoglycemia also wears out the adrenals (glands that handle stress) and eventually hypothyroidism, Cushing's (from over production of adrenal glands), and laminitis, as well as metabolic issues of all types can result.

Heck, the body is "just flat out worn out" from working too hard trying to handle the ups and down of simply living. The body's reserves get worn out simply from living and sometimes even the slightest stress can cause havoc.

So what is the answer to feeding today? Our choices are countless. It is so easy to be swayed by feeds that talk about low carbs, senior feeds and even such things as beet pulp. But I keep going back to oats!

All commercial feeds are produced to "hit the middle of the road" when it comes to vitamin and mineral fortification. For instance, a typical formulation might provide the correct nutrition for a 1,000 lb horse that, say, eats 10 lbs of that feed each day. That is about 1% of the body weight.... So if the horse ate 10 lbs that day he would get "everything" he needed.

Does every "typical, average" 1,000 lb horse in your barn eat 10 lbs each day? If they all did, chances are that you would have some horses that looked like the Goodyear Blimp and some that were as skinny as a rail! They all need different amounts of grain – they all have different metabolisms.... just like us. What about that easy keeper horse that only eats 5 lbs? Is he not getting only ½ of what he needs of the "extra fortification"? How about the horse that needs more? Is he not getting too much?

Let's take this just a little further about the easy keeper, cresty necked, overweight horse, since this is one of the biggest problems I see today. If your horse fit the above description, what would be the first thing you would do? Most likely you would give him less feed, right? But if you cut back would he not be getting less of the "added" vitamins, minerals etc? Chances are, he was already the easy keeper 5-pounder-horse and now you cut him back more!

Definitely the right thinking but definitely missing the very important point that he needs the vitamins and minerals regardless of how much grain he eats! If you feed less of such "premixed", he gets less of the very nutrients that he really needs to regulate his metabolism in the first place. Such deficiencies eventually lead to hypothyroidism, laminitis prone, metabolic, Cushing's type situations.

The point is that regardless of the amount of grain you feed – you must supplement the vitamins and minerals if you have an easy keeper, otherwise you will have an even sicker easy keeper! And certainly hard keepers get out of balance, too, from getting too much.

Once again I suggest oats to handle the problem, regardless of carbs, because oats are easiest to balance – Just add a vitamin mineral supplement to whatever amount of oats that horse needs to maintain HIS proper weight. If you are already feeding commercial grain, simply gradually switch to oats over a week or so. After he has been on that same volume for awhile you can give more oats or less depending on the horse's personal weight needs. Each day just add the vitamin, mineral supplement as a top dressing at every feeding. That way you know he's getting the correct amount of both oats and

supplement. I know this sounds elementary but it is critical, especially for easy keepers. By the way, clean, whole oats are fine. Crimped are only about 6% more efficient and once the hull is cracked they start going rancid. Flax seed is also very likely to go rancid by the way, one of the reasons I generally don't suggest flax – it goes rancid much faster, a problem especially given the way we have to buy in bulk for our horses.

I had a person tell me the other day that horses were not likely to get oats in the wild? I wanted to say “Lady, here is your sign” but I didn't! I reminded her that horses sure were not going to get corn, sugar, or cooked pellets in the wild and that seed heads such as oats were about as close to whatever they could get in the wild. Oats are the seed off of about the closest thing to grass I know! Horses were made to eat grass- right? I am amazed at all the info out there on grass and easy keepers. Only let them eat 1 hour here and one hour there, and only at night and not day, and soak your hay to get the sugars out and on and on and on and on. Can you imagine abiding by such recommendations? It is just not feasible – especially with the 30 or so horses we have – and ours are all easy keeper mountain horses. Oats, added supplements (vitamins, minerals and GOOD FAT), decent hay (or the grass in summer) and FREE CHOICE NATURAL SALT AND MINERALS – (see the article on laminitis) will answer your problems and prevent problems.

I am telling you that thousands upon thousands of horses can't be wrong!

Now before I close I want to discuss one more very important supplement that is needed – GOOD FAT!

Now I know I am picking on commercial feeds here but in my humble opinion they need it - pretty much all commercial feeds contain JUNK FAT! AND this is probably the biggest reason we have so many overweight, insulin resistant horses today. Junk fat is in our horse feed just like it is in our food! JUNK FAT IS KILLING US AND OUR HORSES! Processed, hydrogenated vegetable oils (flax, corn, etc.) are destroying our cells internally and even messing with our nervous systems – nerves and cells are all surrounded by fat membranes. It has the effect of making all such membranes impermeable, like plastic balls.

Today, diets are higher in fat than they were in years past, especially senior feeds and “low carbs” type diets, BUT THE PROBLEM is the type of fat they are using is awful. If your feed says only vegetable oil or doesn't say that it is NOT HYDROGENATED, chances are it is – and, again, awful for our horse.

The same goes for your food, especially snacks - read the labels and avoid these fats. BUT remember - horses do need fat. It should be a great source of omega fatty acids (they need omega 3, 6 and 9, by the way, not just 3). These fats “slow” the absorption of grain, oats or otherwise making the digestion process slower, and obviously will help lubricate the gut as well (great for sandy conditions, too).

In addition, these good fats are great because they nourish the cells.

I prefer to use crude, cold pressed, NON hydrogenated, NON refined soybean oil.

Have you ever heard the expression that “the only way to burn fat is with fat” – well I do believe it is true, because these fat horses (and people) do get better when the good fat is used to displace the bad. I have no doubt that cells, overall, just start to function better in conjunction with these fats because the membrane's major function is to allow the good stuff to get in and the junk to get out.

I suggest **good fats** for all horses as both a preventive and a treatment.

Yes, too much can make a fat horse, but a couple ounces per day of our **GMO-Free Weight Check Oil**, that meets all of the preferred criteria set forth above can make all the difference in the health of a horse. You can actually see the difference in just a few weeks.

I also think that any metabolic, even EPM, neuro-degenerative horses require lots of good oil. I have a sneaky suspicion that many “super bugs” such as those that cause EPM get trapped in fats cells and good fats can flush them out, so to speak. Regardless, they are healthy – commercially used fats are generally not!

By the way, I have had many people ask about beet pulp over the last few years. Beets have essentially no nutritional value except fiber. Why pay for “extra fiber” when hay and or grass would do the same?

Also, beet pulp is a by product of the beet industry and a lot of pesticides are used on beets - roots do tend to accumulate more pesticides than plants. Just food for thought!

Ok, so I think by now you can see I like oats and not commercial feeds. BUT do remember that oats alone are not balanced anymore than commercial feeds are – it is just that they are easier to balance, more nutritious and as close to the “wild” as I have been able to find. They must be supplemented with fat (unprocessed oil) and vitamins and minerals, and free choice natural salt and minerals should be available at all times. If you don’t add the supplements they won’t provide all of what is needed, either ( this is especially so in young horses because they can really get out of balance quickly!)

I suggest this approach for essentially all horses instead of commercial feeds. Such customization is really rather easy - give the horse whatever amount of oats he needs, add the supplement, add the oil and check the free-choice salt and mineral bucket to make sure it is available, and you have a healthy horse ( I do suggest you check out our website on the types of salt and minerals that are best).

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## **THE HEALTH AND HARM OF FATS...**

Truly Your Best Friends And Worst Enemies!

By Dan Moore, The Natural Vet®

One of the most misunderstood yet most important aspects of health, is fat! Quite honestly, many healthcare practitioners don’t even understand just how important fats are.

For instance, would you agree that most people have and ARE being told daily that fats are bad for you? Most doctors, the media, the advertisements and pretty much ALL, suggest a low fat diet. I am here to tell you, in my not so humble opinion, that **NOTHING COULD BE FURTHER FROM THE TRUTH! Fats are critical to your health and your animal’s health.** You need them and you need lots of them, you just need the right kinds!

Stroke, heart attack, and cardiovascular patients are all too familiar fat related problems, but as I will explain, these are just the tip of the iceberg! For instance, anyone who is autistic, has Multiple Sclerosis, Diabetes, Optic Neuritis, Irritable Bowel Syndrome, Fibromialgia, Alzheimers, Parkinsens Disease, ALS, depression (manic or otherwise), Chronic Fatigue Syndrome – ANY neuro-degenerative disorder is most likely lacking good fats and overloaded with bad fats. Liver disease, gallbladder, adrenal disease, heavy metals, any infection (chronic or otherwise), and especially Lymes are

ultimately a fat problem!

As I continue my search, I am quickly coming to realize that even “aging” itself is DIRECTLY related! In horses, my personal opinion is that EPM, Infertility, Botulism, heavy metal toxicosis, Cushing’s Disease, and certainly the obvious - hypothyroidism, metabolic disorders and insulin resistance are all FAT balance related (certainly the same for pets, too).

For the most part, I believe that the equine field is slightly ahead of human medicine in getting the word out to the public about the need for fats. But unfortunately, I am certain that most high fat diets in horses are only going to contribute more to the overall problem – because as in people, we are feeding our horses the “wrong” fats. Neither Low Fat nor High Fat for people or animals is correct --- the RIGHT fat is the answer!

My mission in this article to explain why fats and how fats are so important. For the fish oil and flax eaters, I will offer this preliminary advice though: fish oil and/or flax are not enough! How do we know which fats to use?

For a better understanding let’s look at the body itself.

The brain is 60% fat – (17-20% omega 3, and about 12% omega 6). The cell membranes that surround blood cells, liver cells are roughly half fat. (The other half is protein by the way!) Neurons, dendrites, synapses– the nerve connections themselves, are fat! Myelin, which insulates nerve fibers, is 76% fat!

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The obvious question from me is: How can reducing fat in the diet be good for these? It can’t! The need for a good brain I would think is fairly obvious. Cell membranes are vital because they separate the zillions of cells in the body from the outside world and allow for the exchange of all the bad and good “stuff.” Personally, I want my membranes in tip top shape!

Because I know there is a lot of “bad stuff” to keep out as well as “good stuff” to get in! Nerve connections, that don’t work, such as the dendrites, neurons, and synapses would pretty much be like having a dead battery in your car...you ain’t going nowhere!

One final example: it is in the development of myelin that surrounds the nerves. Myelin development is what babies need before they can start to walk. Now if myelin is 76% fat, is it not obvious that fat is critical? Only if one wants to walk!!! Dah...Here’s your sign if you think otherwise!! (Sorry – couldn’t resist.) But, if such vital structures as these are mainly composed of fat, does it not make sense that the fats need replenishing?

Next, to further understand which fats we need, let’s look at the actual membranes which surround each and every cell in the body. The principle fat in membranes is called a phospholipid. Literally each membrane is made up of millions of phospholipids all lined up. Each has a head and two tails. One tail is a saturated fat (straight tail, the other is an unsaturated fat (a crooked tail). Wedged in between is

cholesterol. Also, a part of each membrane is a glycolipid. Glycolipids are tiny sugar molecules that protect, insulate, and again, exchange nutrients. Let's take a closer look at each of these components and see how each relates.

Cholesterol varies with the type of membrane. For instance, plasma membranes have essentially one cholesterol per phospholipid molecule. Some membranes that need more support may need more, BUT ALL membranes need cholesterol. Cholesterol actually gives the membrane structure, plus it allows certain things to pass and others not to pass.

The problem SOMETIMES with cholesterol is when it "overflows" into the blood stream...but even in the blood stream, it is sort of like a beneficial bandaid FIXING potential leaks in the cell walls of the vessels – putting back the structure to a bad wall. If it breaks loose and causes a clot – yes, that is bad (stroke or heart attack)... but saying that high cholesterol is the cause of heart disease is like saying that a lot of police in a high crime district is the cause of the crime... You must have cholesterol! Who said cholesterol is bad for you? What IS actually bad for you are the bad fats – cholesterol is not the bad fat!

As I said, the main component of each and every membrane in the body is phospholipids. Let's break down the phospholipid molecule and look at it a little closer.

The phospholipid molecule looks like a fish with two tails.

It acts kind of like a magnet – the head having one charge and the tails having the opposite. This magnet-like component attracts and repels, thus allowing "stuff," both good and bad, in and out through the membrane. One side of the tail, the unsaturated one, actually vibrates moving particles in and out! The saturated tail part is rigid and solid and hardly moves. It is the balance of these two tails that is the most critical to understand.

You see it takes both kinds of fats – both saturated and unsaturated to compose the properly maintain structure of the chief component of cell membranes phospholipids). JUST NOT EATING FAT can lead to problems. I mentioned this concept to a friend just the other day. Her comments were that in the office where she worked 7 of the 9 women went on a "low fat craze" several years ago - all seven now have MS! Wow!

Now let's look at one more aspect of fats and membranes, probably the most important! RENEGADE fats, perhaps not a good medical term, but none the less, a word I like to use because it describes these types of fats perfectly.

Why? Because they are bad news to the bone! These are man-made fats or particles of fats or mutated fats or jumbled up fats, trans fats, etc. etc.. THESE, my friends, are the killers and these are what we are eating in the typical American diet (especially prevalent in horse and pet foods, too).

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These RENEGADE FATS can displace the good fats we just discussed. They make the membrane absolutely solid – they don't move, vibrate, transmit or anything – they just prevent the good from

getting in and the bad from getting out! These essentially clog up all membranes and are a major factor in causing disease – essentially any disease!

In slight defense of the “low fat craze,” a low fat diet would reduce these renegades, because these are typically what almost all Americans eat – but if the right fats are not added back, then it is certainly a Catch 22 situation - too much bad and not enough good.

According to my sources, which are not your typical medical media propaganda, almost all degenerative neurological situations are fat related! AND, almost all of the diseases mentioned thus far can be helped by burning the bad fats and flooding the body with the good fats – including phospholipids. This knowledge is not new, ladies and gentlemen – I found books from back in the 70’s discussing this very issue – not in quite so much depth, but the CONCEPT of good and bad fats has been around a long time.

**The difficulty is that the American Food Industry processes almost all of the foods we eat. PROCESSED FATS AND OILS ARE DEADLY. This includes most bread, most crackers, cookies, margarine, cooking oils, etc. – If it says hydrogenated, refined or processed on the label – don’t eat it!**

My Grandmother ate bacon, eggs, real butter and whole milk every day. Most likely so did yours, (but not processed, refined fats and oils) and she lived well into her 80’s. I believe we can, too. Science has not really discovered yet the correct balance of these Omega Fatty Acids (essential fatty acids or EFA’s). Most doctors so far are just suggesting fish oil and/or flax (omega 3) – which are helpful – but I believe we are forgetting the other omegas - even omega 6 and especially omega 9. AND I know most have totally forgotten or are not yet aware of the phospholipids – which are absolutely critical. By the way, one of the best sources of phospholipids and Omega Fatty Acids are CRUDE UNREFINED soybeans. Coconut is a great source of Omega 9 – and coconut even contains high amounts of Lauric acid – shown to be both antibacterial and antiviral!

One quick note on horse and pet feed is the difficulty in preserving fats in the feed – which is often why so many feeds contain these renegade processed fats – they withstand heat that feeds are exposed to better, but honestly are like feeding plastic to your horse! Typical vegetable and corn oil sources are refined, processed and just plain bad for you, your pet, or your horse!

Thus far we have discussed cholesterol, phospholipids, saturated and unsaturated fatty acids and briefly discussed omega fatty acids but have yet to mention the glycolipids present in cell membranes. Essentially these are very simple sugars and though they are being studied extensively, little is known about them except that they protect, insulate and help exchange nutrients. Some studies are already showing that they may actually help modulate or regulate the immune system.

Examples of such glycolipids are mannans such as mannose, oligosaccharides, agrabinogalactan. I have no doubt that they are extremely important because I am seeing the clinical results in both animals and man by using them. Some examples of potential benefits thus far seen are help with gut problems, such as chronic or acute diarrhea, and even allergies. Major universities have even demonstrated by experimentation an increase in Natural Killer Cells, which help fight cancer cells, and activation of what is called the complement system, which is what is activated when foreign substances invade the body– thus making them essentially antiviral and antibacterial. One

lab demonstrated Arabinogalactan (which comes from the Western Larch Tree) to be even more beneficial than Echinacea and especially better with long-term usage.

Finally it is hard to discuss fats without at least mentioning anti-oxidants. THEY are critical, too, for many reasons but especially important regarding fats. When fats rot or go rancid they are essentially worse than anything. The reason the food industry even processes fats and oils to begin with is so that they are more stable and less likely to go rancid – we now know this is not good, right? But as we use more good fats less processed as I suggest) there is a greater chance of rancidity – because they are less stable (perhaps I should say LESS LIKE PLASTIC).

These must be counterbalanced with antioxidants. THE PRIMARY ROLE OF ANTI-OXIDANTS IN THE BODY IS TO STABILIZE FATS! Oxidation could be described as rusting. Anti “Oxidation” is to help prevent the rusting within the body. Every animal, including man, needs anti-oxidants daily. Just like a piece of metal left in the environment will rust, so will our bodies if they are not protected. Anti-oxidants are like “Rustoleum” for the body – critical for long term protection.

I hope it is becoming more and more clear that simply eating “low fat” and less cholesterol (much less cholesterol lowering drugs) is just not the answer.

Essential fatty acids, phospholipids, glycolipids and anti-oxidants are a critical parts of anyone’s (or animal’s) health plan. I wish I had the TOTAL answer for you and I do certainly promise to keep searching. In the mean time, avoid processed food (renegade fats, hydrogenated, refined) as much as possible. Do consider an essential fatty acid supplement (but not just fish oil or flax). Always take anti-oxidants yourself and give your pets and horses anti-oxidant supplements, too.

Start each and every day with 25 grams or so of high quality protein (a whole other nutrition lesson!) and consider a phospholipid supplement as well.