



Omega Fatty Acids

The case for BALANCED Omega Fatty Acids in equine nutrition!

For horses, especially active horses that are going to be around for many years, **INFLAMMATION** can and does lead to **chronic health conditions**, and can make current health conditions considerably worse over time.

There is no easy way to say this ... there are **many feeds in the marketplace** that **could be harming your horse**, especially if you have a performance horse.

You may be gaining the benefit of a shiny, healthy-looking coat ... *but at what cost?*

We approach inflammation in the performance horse through balancing Omega 3's with Omega 6's in the diet.

Omega 3's are the "Good" fatty acids that reduce inflammation,
Omega 6's are the "Bad" fatty acids that prompt an exaggerated inflammatory response.

The horse does need some of both, but the ratio is what is critical to keep in mind. We recommend that at minimum, you maintain an Omega 6:3 ratio of 1:1 (equal parts of each). *For optimum health*, we recommend striving for a balance even higher in Omega 3's - the optimal ratio being 0.3:1 ratio (over 3 times more Omega 3's than 6's).

This is typically the amount that can be found in fresh, well balanced grasses and other forages, and what horses are meant to consume on a daily basis if under the perfect conditions. The goal is to feed horses as they are meant to be fed in the wild. Horses on fresh healthy pasture grass are generally very healthy and have a low inflammatory response when something goes wrong, which is what we would ultimately hope to achieve in a performance horse's diet.

However, with the additional dietary needs of performance horses in terms of providing extra calories and expendable energy sources, the quick and easy fix is typically grains or concentrates containing far more Omega 6's than Omega 3's, which instantly turns the ratio upside down.

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For a quick outline showing the Omega 6 : Omega 3 ratios of common feedstuffs, see the Appendix on the final page.

Here are a few more common feedstuffs as examples:

Alfalfa = 1 : 1.2 (*close to the 1:1 ratio I mentioned above as satisfactory*)

Pasture or Grass Hay: 1 : 3.0 (*the best example of the best possible ratio*)

Flaxseed meal (cold processed) = 1 : 3.4 (*very similar to pasture/grass, the best possible ratio*)

Now look at how other common feedstuffs have **FAR** more Omega 6's, and can **prompt more inflammation** in the performance horse:

Soybean meal = 10 : 1 (*about 3.5x as much Omega 6's than Omega 3's*)

Oats: 24 : 1 (*even higher in Omega 6's*)

Corn = 63.3 : 1 (*MUCH higher Omega 6's, corn is very inflammatory for the performance horse, and we never recommend corn products or corn oil be fed to the performance horse for this reason*)

Then there is Sunflower Oil and Sunflower Meal:

Sunflower = 201.6 : 1 (*literally 200 times higher in Omega 6's than Omega 3's!*)

Sunflower products are among the ***MOST inflammatory*** seed oils there are, resulting in extremely high inflammatory responses for horses. While sunflower oils are generally fine for livestock that don't often live longer than a year or two, and are not very active, horses are a different story, especially the performance/active horse.

For them, sunflower is perhaps the **worst choice for long term health**, with feedstuffs like corn and oats not too far behind when given in large amounts.

There have been feed companies offering what is referred to as a "High Oleic Sunflower" in horse feeds, as this is a specially modified crop that replaces some of the Omega 6's with Omega 9's. Originally designed for use as a high temperature cooking oil, the Omega 9's in the product are touted as "healing" with stable cholesterol levels, which led to claims that High Oleic Sunflower can help with heart health. However, the ratio of good Omega 3's remains very poor, and still creates a very concerning inflammatory response in horses.

Perhaps worst of all is there are usually no guarantees that you are getting the "better" High Oleic Sunflower, as there is rarely any information provided on the product label in regards to the guaranteed Omega 3/6/9 content of the product.

In our opinion, it's best to avoid any type of sunflower product for your horse, as **NONE will have a beneficial ratio, regardless of the source.**

If you are feeding grains or concentrates, there are ways to balance out Omega 3's and 6's in your horse's diets by using either Flaxseed Meal like our *SU-PER OmegaFLAX*, or a fish oil based product like our *SU-PER OmegaBOOST*. However, if you are feeding a sunflower product in the large amount per day that is often recommended, there is no possible way to balance that out to a healthy ratio. If you are feeding a sunflower product to any of your horses at that rate, you will likely be constantly dealing with excessive inflammation, pain, slow recovery, chronic conditions, and more.

One of the worst things that can happen is poor kidney function. A diet too high in Omega 6's can cause increased kidney inflammation, and negatively effect overall kidney function. Other potential serious health conditions include cardiovascular issues, metabolic conditions, chronic pain conditions, and even neuropathy.

Our recommendation would be to immediately stop giving any type of Sunflower product to your horse.

It can be replaced with any well-known performance feed concentrate which gives you a very specific breakdown of the Omega 3 and Omega 6 content in the formula guarantee. With those numbers in hand, you can then use *SU-PER OmegaFLAX* to provide a large amount of Omega 3's to achieve the proper balance.

One other note on any type of high performance feed you be considering: Their guaranteed analysis should give **ALL** the critical information needed to determine if it is truly nutritionally balanced. We often see a lot of nutrients in an ingredient list, but there is no indication of how much of each of those nutrients is actually present. Any ingredient which is high in Omega 6's is concerning, but any lack of detail on the label is something we would not be comfortable with, as there is no way to determine what you are actually feeding in regards to sources of Omega Fatty Acids, and obviously essential vitamins and minerals as well. If you currently give a feed that shows high amounts of corn, soybean, grain by-products, etc., on the ingredients list (higher amounts are first on the list), be sure to request the Omega 3/6 amounts from the manufacturer so you know what you are feeding on a daily basis.

On a related note, we often see "skin and coat" supplements that are usually made of soybean oil, and to a lesser extent corn oil, coconut oil, sunflower, and other oils/grain meals with High Omega 6 content. These products will definitely provide a nice, shiny, healthy looking coat. However, that same healthy-looking coat can be achieved by giving high Omega 3 products like our *SU-PER OmegaFLAX* or *SU-PER OmegaBOOST*, or even our specially formulated *SU-PER Show Coat* - plus you get the added health benefits associated with Omega 3's to help maintain a lower inflammatory response every day for your horse.

**For the best overall health
and longer performance life of your horse,
the proper ratio of Omega Fatty Acids is absolutely invaluable.**

Appendix A

How much Omega 3's and Omega 6's are in common horse feed ingredients?

Forages contain more Omega 3 than Omega 6 while grains contain more Omega 6 than Omega 3. Some oilseeds like sunflowers contain more than 200 times as much

Omega 6 as Omega 3 while other oilseeds like linseed (flax) contain close to 3.5 times more Omega 3 than 6. A detailed breakdown of the amount of Omega 3 and 6 in common horse feeds is shown in the table below.

INGREDIENT NAME	OMEGA 6 (%)	OMEGA 3 (%)	O6 : O3 RATIO
Cod Liver Oil	2.00	24.50	1 : 12.5
Linseed (Flaxseed) Oil	13.90	57.40	1 : 4.1
Linseed (Flaxseed) Whole	5.60	19.10	1 : 3.4
Linseed (Flaxseed) Meal	1.30	4.50	1 : 3.4
Grass Hay	0.30	1.00	1 : 3.3
Pasture (3.5% Crude Fat)*	0.60	1.80	1 : 3.0
Alfalfa/Lucerne Hay	0.40	0.50	1 : 1.2
Canola Oil	19.50	9.80	1.9 : 1
Canola Meal	2.20	1.10	2.0 : 1
Lupins	1.50	0.70	2.1 : 1
Sugarbeet Pulp	0.20	0.04	5.0 : 1
Soybean Hulls	1.10	0.20	5.5 : 1
Soybean - Full Fat	9.80	1.40	7.0 : 1
Soybean Oil	51.70	7.20	7.1 : 1
Faba Beans	0.90	0.10	9.0 : 1
Soybean Meal	1.00	0.10	10.0 : 1
Wheat Bran	2.10	0.20	10.5 : 1
Barley	1.10	0.10	11.0 : 1
Brewers Grains	2.20	0.20	11.0 : 1
Olive Oil	10.80	0.70	15.4 : 1
Coconut Oil	2.00	0.10	20.0 : 1
Oats	2.40	0.10	24.0 : 1
Rice Bran	6.60	0.20	33.0 : 1
Dried Distillers Grains (maize)	3.80	0.10	38.0 : 1
Corn Oil	55.00	0.90	61.1 : 1
Corn/Maize	1.90	0.03	63.3 : 1
Sunflower Oil	60.50	0.30	201.6 : 1
Sunflower Seeds	27.10	0.13	208.4 : 1

GREEN background indicates ideal and acceptable ratios of Omega 6 Fatty Acids to Omega 3 Fatty Acids.

Source: <https://feedxl.com/29-omega-3/>