

# HORSE HEALTH

# **Feeding Flaxseed**

January 15, 2009

#### Is this plant safe to feed your horse?

#### By Thomas R. Lenz, D.V.M., M.S.

A horse owner recently sent *The American Quarter Horse Journal* a column from a horse magazine pointing out potential toxic effects of feeding flaxseed to horses. Because flaxseed is commonly fed as a supplement, I thought it would be a good idea to look into the issue. Here is what I have learned.



#### The Plant

Flax is a small, blue-flowered plant that grows throughout the United States. The plant contains cyanogenic glycosides that can produce highly toxic hydrogen cyanide (prussic acid) if the plant cells are damaged. This occurs most frequently when a cold snap freezes the plans. Cyanide contained in the damaged leaves affects the animal's respiratory

system and can cause sudden death. Other plants that can produce cyanide after sudden damage to their leaves include sweet peas, sudan grass, Johnson grass, sorghum and white clover.

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## Supplements

Flax produces a tiny seed that is commonly fed to livestock. It has also become popular in human diets because it is thought to lower serum cholesterol, prevent heart disease, lower blood pressure, improve skin quality and stimulate the body's immune response. Some studies in laboratory animals suggest that it can also aid in the treatment and/or prevention of some forms of cancer.

Because the tiny flaxseed is hard and difficult to chew, most of it goes undigested if it is not processed prior to feeding. Traditionally, flaxseed has been crushed to produce linseed oil and the resultant flaxseed (also called linseed) meal has been used as a protein supplement for livestock.

Similar to most grains, the composition of flax can vary based on variety, environmental factors and methods of analysis. But generally, flaxseed contains 42 percent oil, 20 percent protein and 28 percent dietary fiber. Flaxseed also contains high concentrations of Omega 3 fatty acids, which horses need to maintain good health. Omega 3 fatty acids are not produced by the body and must be obtained through the horse's diet.

Research conducted at the University of Guelph demonstrated that horses suffering from sweet itch, a common skin disease caused each summer by Culicoides insects (midges), improved dramatically following daily supplementation of their diet with one pound of milled flaxseed. Other benefits of flaxseed supplementation include stimulation of the immune system, relief of arthritis and reduction of pain due to inflammation, an increase in the ability of cells to take up oxygen, improved skin and hair coat and scavenging of free radicals. Because it is high in dietary fiber, it can also help prevent impaction and sand colics.

Whole flaxseed, as opposed to milled flaxseed that has been ground, should be soaked in cold water for two to six hours and then boiled for 10 to 30 minutes to soften it and destroy any prussic acid that might be present. It is then fed, about ¼ cup (measured dry before soaking), as part of a bran mash once or twice a week per horse per feeding. The whole seed keeps well in storage for a long time, but ground flax will deteriorate fairly quickly. Many of the newer horse feeds contain milled flaxseed or linseed meal that will be listed on the label.

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# Concerns

There has been some concern that flaxseed causes hypothyroidism in horses, but I could not find a reliable source that confirmed this fear. Hypothyroidism is poorly understood in the horse. AQHA is funding research to learn more about the disease.

It also appears that although the flax plant can become toxic if severely damaged by an early frost, the seed and oil are relatively safe if fed in small amounts. As discussed earlier, the seed can always be boiled to destroy any toxic prussic acid if you're concerned about feeding flaxseed.

If you have any questions on flaxseed supplementation, talk to your local university extension equine nutritionist.

For more information on keeping your horse healthy, consult an American Association of Equine Practitioners-member veterinarian in your area. For a list of members, **click here** or call (800) GETADVM.

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# COMMENTS

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# Lisa G

January 15th, 2009 at 2:06 pm

Could you tell me how safe Kelp is for horses, I was informed by a trainer that Kelp supplement helps the horses coat, is that really true, what is the pros and cons, also what is the comparison with flaxseed.

Thanks, Lisa G.

## Shelly M

January 17th, 2009 at 10:40 pm Thank you for the info on the Flaxseed plant itself. I had no idea it was toxic, and I have alot of it just outside my pasture gate. My horse doesnt seem particulary fond of the plant, and doesnt grab at it like he would grass growing outside the gate. I live in a mountain valley and I am sure the plants near my gate have been in a toxic state. I will know now to keep my horse away from the plants after the first hard freeze. FYI:These plants multiply rapidly and might be hard to get rid of. The plants seem to die after two years of blooming around my place, but are rapidly replaced by the other self seeding plants.

# $\bigcirc$

# Kristin

January 20th, 2009 at 11:08 am Hi Lisa,

Just wanted to let you know that some information on Kelp is on its way!

-Kristin

# Helen San Sebastian

January 21st, 2009 at 4:21 pm

I feed ground flax to all my horses for years now. I give 1 cup in the Am and 1 cup in the PM with their supplements. They all have a beautiful shine. And i believe they have a stronger immune system.

# Joan

#### January 21st, 2009 at 5:08 pm

Regarding the feeding of flaxseed. Old time horsemen knew to soak the flaxseed then boil/simmer it. The seed and water was added to make a bran mash along with salt and a half cup of molasses. I still do it that way.

# Janine

#### January 21st, 2009 at 5:44 pm

I read somewhere that the seed contains cyanide and should not be fed whole unless cooked or ground, once the seed is broken then the cyanide is released. I always buy whole seed and grind it just before I go out to feed, I keep it in a burr coffee grinder and grind the amount I need for that feeding, it is a convenient way of feeding ground flax.

# Tamy

January 21st, 2009 at 6:41 pm

A.m. & p.m. I feed: 1/4 C whole flax seeds, 1/4 C stabilized rice bran meal, Nutrena's Safe Choice (about 2 cups)&, now that it's so cold & we've had one case of colic, electrolytes.

Are the flax seeds, un-ground, doing any good? Are they doing any harm? At the price, if they're ineffective or dangerous, I'll quit feeding it asap.

Thanks!

# Dana

#### January 21st, 2009 at 6:42 pm

I started both my horses on flaxseed last year before show season. We kept both horses under the same lights . . blankets etc. but the one horse with sensitive skin grew a very thick hair coat! He looked liked he had been outside in the winter under no blankets or lights! As soon as we took him off of it, he started to lose his hair and go back to his slick show coat. The other horse showed no differences at all. Has anyone else experienced this with flaxseed?

# Holly

#### January 21st, 2009 at 8:16 pm

I have three Quarter horses, a 4 year old gelding, a 15 year old gelding and a 24 year old mare. All three of my horses get ground flax seed everyday for all the reasons listed (immunue system, digestive, improved skin and coat). Just in case you want an easier way to feed flax seed is to go to http://www.horsetech.com as they sell ground flax seed! It is a little more expensive than buying it whole and grinding it your self but it has a stablizer in it and with three horses I buy it in a 40 lb bag. They also sell it in smaller quanties if you don't need that much.

## Deborah

## January 21st, 2009 at 8:43 pm

The plant is unsafe when it turns RED. All the other grasses that are poisonous ... sweet peas, sudan grass, Johnson grass, sorghum and white clover... turn red when they are producing prussic acid. Every farmer who grows those grasses, knows to keep the cows off after the first frost and during periods of drought. Whenever they find a dead cow, it is in the red grass area, not the green area.

## Janet Mcdonald

#### January 22nd, 2009 at 6:51 am

My friend where I keep my colt feeds flax seed, soy meal,mineral with the mix grain. When I picked my mare up from where she was boarded before, she was in poor condition, I brought her to my friend's place and within a week to two months, she improved gained weight her coat was glistening. She had two foals at my friend's from her stallion and the babies were excellent, all from the feed, the flax seed. Now my colt that I have left from my mare(I have since sold the mare) looks good, even tho he gets muddy, I can curry him and he looks beautiful. He is a bay/dun.

## Janet

January 22nd, 2009 at 6:55 am Kelp is iodine it is good for alot of things, it is helpful suppressing cysts in humans, also epilepsy, I give it to my cat and it has helped her. If you want more info on it you can e-mail me at:cowgirlupjani@msn.com.

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