

What is Cosequin®ASU?

Cosequin ASU from Nutramax Laboratories, Inc. is a superior joint health supplement in a tasty powder for horses that goes beyond standard joint supplements. It contains NMX1000®* avocado/soybean unsaponifiables (ASU), MSM (methylsulfonylmethane), FCHG49®* glucosamine hydrochloride, and TRH122®* chondroitin sulfate. With this combination of active ingredients, Cosequin ASU is the most complete joint support supplement available for horses.

What role do the glucosamine hydrochloride and chondroitin sulfate play?

The combination of the trademarked FCHG49 glucosamine hydrochloride and TRH122 chondroitin sulfate supports cartilage production and inhibits joint enzymes that break down cartilage. These two ingredients together have been shown to protect joint cartilage better than either ingredient alone. A greater than additive effect, known as a “synergistic” effect, on cartilage cells was seen using Nutramax Laboratories, Inc. specific glucosamine and chondroitin sulfate together.



Photo by: Anthony Trollope

BROAD SPECTRUM JOINT SUPPORT®



U.S. Patent Nos. 5,587,363 and 6,797,289
Additional Patent Pending

*Cosequin®ASU contains FCHG49® Glucosamine Hydrochloride, TRH122® Sodium Chondroitin Sulfate, and NMX1000® Avocado/Soybean Unsaponifiables, Nutramax Laboratories® exclusive proprietary researched specifications.

▼ Source: Surveys conducted in the Fall of 2002, March 2004, and September 2007 of equine veterinarians who recommended oral joint health supplements.

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BROAD SPECTRUM JOINT SUPPORT®



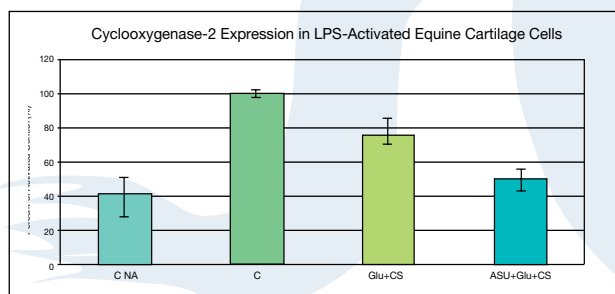
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What is ASU?

ASU stands for avocado/soybean unsaponifiables, derived from avocados and soybeans. Studies using cartilage cells have shown that it lowers the expression or production of several compounds involved in the process of cartilage breakdown in joints. ASU complements the positive effects of the glucosamine and chondroitin sulfate in Cosequin®ASU. The glucosamine in Cosequin ASU is synergistic with chondroitin sulfate and has been shown in cartilage cell studies to be synergistic with ASU. Having ASU in the Cosequin ASU formula is especially beneficial as NMX1000® avocado/soybean unsaponifiables, FCHG49® glucosamine hydrochloride and TRH122® chondroitin sulfate together were shown in cell studies to be more effective than the combination of glucosamine and chondroitin sulfate alone at inhibiting expression of several agents involved in the breakdown of cartilage.



The combination of NMX1000 avocado/soybean unsaponifiables, FCHG49 glucosamine, and TRH122 chondroitin sulfate (ASU+Glu+CS) reduced the level of a compound, known as cyclooxygenase-2, that is involved in cartilage breakdown to a level comparable to that of the non-activated control (C NA) (normal joint cells) and was superior to the combination of glucosamine and chondroitin sulfate alone (Glu+CS). C=control cells activated by lipopolysaccharide (LPS); LPS stimulates the cells to release cyclooxygenase-2 and other compounds that lead to cartilage breakdown.

Why is MSM included in the formula?

Although clinical data on MSM is limited, many veterinarians and trainers recommend the use of MSM in the management of joint health. MSM is an organic source of sulfur, a compound used by cartilage. Cosequin ASU provides a joint health supplement formula for those individuals that would like to additionally supplement with high purity MSM.

What is meant by broad spectrum?

Broad spectrum means that the ingredients support cartilage health via many pathways. As mentioned earlier in this brochure, the ingredients inhibit compounds and enzymes in the joint that contribute to cartilage breakdown while also supporting cartilage production.

How is Cosequin®ASU different from other supplements?

Cosequin ASU contains the ingredient ASU along with the optimal amounts of glucosamine and chondroitin sulfate that your horse needs. ASU works along with glucosamine and chondroitin sulfate to support your horse's joints. In fact, the combination of glucosamine/chondroitin sulfate plus ASU has been shown to work better in cartilage cell research than glucosamine/chondroitin sulfate alone. Cosequin ASU has the further addition of high purity MSM. Some veterinarians suggest using MSM to help manage joint health.

Are there any safety concerns with Cosequin ASU?

Cosequin ASU has been evaluated in a safety study in horses, and no adverse effects were noted from administration. There are no known contraindications or known interactions between Cosequin ASU and any drug or nutritional supplement.

Can Cosequin ASU be given to a pregnant mare?

No studies have been completed that specifically address the use of Cosequin ASU during pregnancy. Use of Cosequin ASU during pregnancy should be an individual decision made in consultation with your veterinarian.

Can Cosequin ASU be used on a competition day?

Cosequin ASU contains supplement ingredients for assisting joint health. It is best to check with your appropriate authority regarding its regulations or restrictions on supplement usage.

How do I administer Cosequin ASU?

Cosequin ASU's tasty powder can be added to your horse's feed by following the administration table below.

Administration as a supplement for horses:

	Initial 2-4 Weeks	Economical Long-Term Administration
Under 600 lbs	1 scoop daily	1/2 scoop daily
600-1200 lbs	2 scoops daily	1 scoops daily
Over 1200 lbs	3 scoops daily	1-2 scoops daily

Allow 2-4 weeks initially to note a response, though some horses may respond sooner. Once a positive response is seen, the number of scoops may be reduced to the level that keeps your horse comfortable. When lowering the number of scoops, observe your horse closely. If your horse's comfort level appears to decrease, the initial administration amount should be resumed for an additional 2 weeks before trying the long-term administration level again. Once consistent improvement at the long-term administration level has been seen, amount may be further reduced to the minimum necessary to keep your horse comfortable. While the administration guide provides the number of scoops recommended to help the average horse, an individual horse's needs may vary. Horses on a long-term administration level can be increased back to the initial level at any time as needed (e.g., prior to or during an event or strenuous exercise). A long-term administration level can also be used on healthy horses to help support their joints. At any time, the number of scoops may be increased if needed.

What response should I see in my horse when giving Cosequin®ASU?

Prior to starting Cosequin ASU, you may have noticed unevenness of gait, reluctance to take or change a lead, or shortness of stride, which may be early indicators of cartilage breakdown. After starting administration with Cosequin ASU, observe your horse closely, and notice whether your horse becomes more comfortable doing those activities he/she seemed reluctant doing or had some trouble doing previously. Changes in your horse's comfort level may occur gradually. Please allow time for your horse to respond. As noted above, it may take 2-4 weeks to see improvement, though some horses may respond sooner.

My veterinarian has also recommended an injectable joint product. Why?

Cosequin ASU helps to minimize ongoing joint wear and tear by supporting joint cartilage production and by inhibiting enzymes and mediators involved in cartilage breakdown. Horses will usually respond to Cosequin ASU within 2-4 weeks, sooner in some horses. In those cases in which a more immediate response is desired, your veterinarian may initially recommend an injectable product.