



# MARYLAND COOPERATIVE EXTENSION

UNIVERSITY OF MARYLAND / COLLEGE PARK • EASTERN SHORE

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## JANUARY EXTENSION HAPPENINGS

- Jan. 8, 7-9 p.m.: **Pesticide Private Applicator Training** – Garrett Co. Extension Office, Mt. Lake Park. Contact Willie Lantz at 301-334-6960.
- Jan. 10: **Winter Wednesday Series – What’s New, What’s Old, What Works for Weed Control?** – Dr. Ron Ritter, Carroll County Extension Office, Westminster
- Jan. 15, 1 p.m.: **Pesticide Private Applicator Exam** – Garrett Co. Extension Office, Mt. Lake Park. Contact Willie Lantz at 301-334-6960.
- Jan. 16, 10 a.m.-noon: **Pesticide Private Applicator Training** – Rms. K, A & B, Carroll County Extension Office, Westminster
- Jan. 16, 9 a.m. - 3:30 p.m.: **Farm Estate Planning Workshop**, Cecilton Fire Hall. Contact Dave Almquist at 410-996-5280.
- Jan. 17: **Estate Planning Workshop**, Howard County Fairgrounds
- Jan. 22, 7-9 p.m.: **Private Pesticide Certification Exam**, Davidsonville Family and Recreation Center. Registration required. Call 410-222-6759 or 301-970-8250, ext. 6759 for information and registration.
- Jan. 23, 9 a.m.: **Western Maryland Hay & Pasture Conference**, Western Maryland Research and Education Center, Keedysville
- Jan. 23, 7-9 p.m.: **Private Applicator Examination** – Rms. K & A, Carroll County Extension Office, Westminster
- Jan. 24, 9 a.m.: **Southern Maryland Hay & Pasture Conference**, Isaac Walton League Outdoor Education Center, Waldorf. Contact Ben Beale at (301) 475-4484.
- Jan. 31, 10 a.m.-noon: **Private Applicator Recertification** – Rms. K, A & B, Carroll County Extension Office, Westminster

## Ask the Experts

**Q** I have a 23-year old Quarter Horse with arthritis that has caused her left front knee to swell. I had a vet check it a little while back and he said it would be fine, but that if it hardened to call him and he would give her a shot. About a year ago, she bowed the tendon in her right front leg and it still gives her problems sometimes. The arthritis seems to be bothering her more as it gets colder, but her knee has never swollen up as big as it is in the three and a half years that I have owned her. I give her MSM in her feed and apply liniment to both of her front legs as part of my daily routine. I actually believe that the right front is bothering her more than the swollen knee. I have done everything that I know to do. Any advice would be greatly appreciated.

**A** Arthritis is something that is not fun to deal with – add to that a bowed tendon, and I can only imagine it gets hard for your mare to get around easily! Definitely keep in touch with your vet. It sounds like he is considering giving her an injection directly into the knee joint. Generally, this involves sedating the mare so that she doesn't move, prepping the area and directly injecting one or more of several drugs such as polysulfated glycosaminoglycans (PSGAGs), sodium hyaluronate, and/or corticosteroids. The PSGAGs, which can

also be given intramuscularly in the form of Adequan®, are basically the building-blocks of joint cartilage and also provide some anti-inflammatory relief to the horse. Research has also shown that PSGAGs stimulate the body to produce its own hyaluronic acid. Sometime intra-articular injection of PSGAGs can cause infection, so they may be given along with an antibiotic. The biggest downside to using PSGAGs is the high cost – whether you choose to do a direct injection into the joint or use Adequan®.

Sodium hyaluronate, also called hyaluronic acid or HA, can also be given either directly into the joint or intravenously (Legend®) and acts as a lubricant, reducing friction in the joint. Legend® is administered every week for three to four weeks and then is given less often after that for maintenance doses. The nice thing about Legend® is that it allows vets to treat more than one joint with just one shot. There is also an oral HA supplement that is showing some promise in research studies.

Many people are afraid to use corticosteroids because of the possibility of joint deterioration. However, research studies at Colorado State University have challenged that theory, and corticosteroids are still a viable option for horses with osteoarthritis. Corticosteroids provide almost instantaneous anti-inflammatory relief to the horse. One corticosteroid, Triamcinolone acetate (TA), provides relief for a moderate length of time and seems to also provide some protection to joint cartilage. Corticosteroid use outside the joint can lead to laminitis if given at an incorrect dosage, which may also lead owners to believe it is not a good approach for horses suffering from arthritis. When your vet combines corticosteroids and HA and injects them directly into the joint, your horse will have the most relief.

You mention that you are already giving your mare methylsulfonylmethane (MSM). The main function of MSM as a supplement is as an organic source of sulfur. Sulfur is important in the “cross-linking” of cartilage – in essence, it adds strength and stability to cartilage and joint tissue. Deficiencies in sulfur can lead to poor hoof strength, tendon and ligament weakness, poor joint cartilage quality, and delayed injury repair.

There are other joint supplements available that might be helpful to your mare. Glucosamine forms the backbone of the glycosaminoglycans (GAGs) mentioned earlier. The theory behind glucosamine as a supplement is that it stimulates production of joint lubricants, and acts as an anti-inflammatory (there is data in human research to support the latter claim). Research in horses has shown that it is absorbed intact at 90-98%. It is also indicated for treating tendonitis, so it may be beneficial for tendon injuries as well. The other “biggie” joint supplement is chondroitin sulfate. Chondroitin, a proteoglycan, is a normal constituent of joint cartilage. The theory behind its action is that when there is damage to the joint tissues, there is an overall loss of proteoglycans. By supplementing it to the horse in its diet, it may provide enough that the horse can rebuild its joints. Again, it may also have anti-inflammatory properties, and it may inhibit enzyme destruction leading to joint deterioration.

A recent study in Kentucky showed that using the two products in combination provided greater benefit than giving each on its own. The study found that horses receiving twice daily oral chondroitin/glucosamine supplementation required fewer joint injections throughout the year.

Allow your mare access to plenty of exercise – 24/7 turn-out if possible. The more she moves around, the better off her arthritic knee will be. When she is confined, it will be stiffer and harder for her to get around. This may make her lean more on her right leg, which could exacerbate the already bowed tendon or make any arthritis present in that leg more painful. Older horses may not be as able to keep themselves warm in the winter (just like older people), so make sure she has plenty of hay to eat, shelter and a blanket, if necessary! Definitely keep in touch with your vet and if you see either leg getting worse, give him a call.

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*This column is sponsored by the University of Maryland. The views expressed herein are those of the author and are not necessarily those of The Equiery's publisher or staff.*