Royal Veterinary College Royal College Street London NW1 0TU

## FAQs for Owners Atypical Myopathy Testing

## What is atypical myopathy and what causes it?

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Atypical myopathy is a serious and often fatal disease caused by eating the seeds, leaves and/or seedlings of the sycamore tree which contain a toxin called Hypoglycin A (HGA). Horses show signs of colic and weakness which quickly develop to muscle tremors, a low head carriage, lying down sometimes with the inability to get up. The disease can develop very quickly over a matter of hours and early supportive therapy from a vet is likely essential. The toxin prevents the horse's body from utilising nutrients that would normally allow muscles to function properly, in particular the muscles that are used for breathing, standing and movement, but also the heart muscle. Affected horses often have dark, reddish urine because of the breakdown of muscle tissue, which ends up being excreted through the kidneys. Eventually breathing difficulties and heart problems result in death or the need for euthanasia in most affected animals.

### Why should I test plant material on my grazing?

By finding out if the seeds/leaves/seedlings in your pasture contain the HGA toxin and how much, you can make an informed decision about the risks posed to your own horse and then respond appropriately.

### What is HGA and why do trees contain it?

HGA is an unusual amino acid that is found in certain trees but not others. We do not know its function, although it might be important for growth or for protection from grazing animals.

## Do other trees contain HGA or is it just sycamores?

Research suggest that in Europe it is predominantly the sycamore tree that contains HGA. Current evidence suggests that other species of Acers, common to Europe, such as the Field Maple and Norwegian maple and other trees outside of the Acer family such as Ash and Oak do not contain the toxin. Some other species of Acer, such as the Box Elder, can also produce the toxin, as can Lychee and Ackee fruit trees.

### How do I know if the trees on my pasture are sycamores?

The Sycamore tree belong to a family of trees called Acers. There are more than 25 different Acers e.g. Field maple and Norwegian maple and not all of them contain HGA. The appearance of their seeds and leaves differ and can be used for identification but it can be difficult. Asking an expert's opinion might be helpful.

Do all trees contain the same amount of toxin?

No. The toxin levels can differ between trees and differ between the leaves, seeds and seedlings of a single tree.

Does the toxin remain at the same level all year and from year to year?

form to the laboratory using the address label available on the website. We advise samples arrive at the laboratory the n

How much does testing cost?

Each sample for our standard test costs £ í ð ð for example if you send in 2 samples the total costwill be £ î õ ò.

What do you mean by one sample?

One sample is one bag of seeds or leaves or seedlings. If you want to test more than one paddock, more than one area of a paddock or more than one tree, the cost will be more than £ í ï ð ô. Pleasmake sure you send in the correct amount for the number of samples you collect and send.

How can I pay?

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How long do results take and how will I receive them?

Results take between 2- ï weeks. To make the cost more affordable to owners we have to run the samples in batches. Results are sent via email. Please check your junk boxes if you think you haven't received your results.

Do you offer a faster turnaround?

Yes. We offer an expedited service for £ î ô ôer sample. Results are available within 72 hours of the sample being received.

the frequently asked questions (FAQ) document. Please take some time to look through the rest of these FAQ. We recommend that you contact your own vet if you have specific further queries.

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No. As soon as we receive your sample it is logged and frozen so that when tested it is in the same condition as when we receive it.

## How accurate is the test?

The test we use exceeds industry standards and is highly sophisticated and extremely accurate, reliable and reproducible.