

## Why do I need to Coggins Test my horse??

Although most horse owners know they need a Coggins test to go to a show or sale, not all of them know what they are testing for, or why. As financial times become more difficult, there is increasing backlash against the testing requirements. However, there are important reasons that horses still need to be tested.

First of all, the Coggins test ( named for the scientist who invented it) tests for Equine Infectious Anemia (EIA). EIA is a virus similar in many ways to the HIV virus. It is spread through blood sharing from an infected horse, either through insect bites or through the sharing of needles, tattoo devices and other equipment. It can also be spread through sexual intercourse, and from dam to foal in utero. It was once a cause of devastating outbreaks in equine populations, but testing has reduced the number and frequency of outbreaks to such a low number that people don't realize how devastating the disease is.

EIA can cause a number of different syndromes. Once infected, some horses will become acutely ill and die. Symptoms include high fever, swelling of legs and sheath, profound weakness and weight loss, and as the name suggests, anemia. Anemia results from destruction of red blood cells in the body and can be so severe as to result in death.

Horses who do not become acutely ill can develop a chronic disease characterized by weight loss, periodic high fevers, and loss of condition. Some horses may also carry the disease without any symptoms. These asymptomatic horses can still spread the disease to other horses. No vaccine exists for EIA ( despite claims I have seen on the internet) and there is no effective treatment.

Now, if we test a horse on a particular day, we only know whether the horse is infected on that particular day. This is a common reason brought up for why people feel having to Coggins test their horse is a waste of money. However, that view misses a key factor. This key factor is called population immunity. Essentially, population immunity means that we are only safe from a disease if we are negative for it AND a certain percentage of the population of people/animals around us( generally a high percentage) are as well. The untested animals remain a reservoir of potential infection and pose a threat to the whole population. If your horse goes to a show where no horses have been tested, you can have very little certainty that your horse is in a safe environment in regards to EIA. However, if he goes to a show where 100% of the horses have tested negative, the likelihood of him being safe from EIA infection is very high.

In addition, every test creates a data point, or piece of information about the state of the whole horse population. For example, if you wanted to know how a class of students was doing, asking just one of them their grade point average would not be very informative. However, if you got 100%, or even 75% of the students to tell you their grades, you would be able to make a good guess at how the class is doing overall. Similarly, by testing many, many horses, the USDA can tell whether the disease is becoming more common, less common, or staying the same by looking at the total numbers of positive and negative horses in different states and across the country as a whole. If the number of EIA cases in one state spikes, the USDA can also restrict equine travel to and from that area to control the spread of the disease.

So in reality, each horse owner is testing their horse for EIA to protect ALL the horses at a show or event. It is a small contribution to maintaining the health of the horses nation-wide.