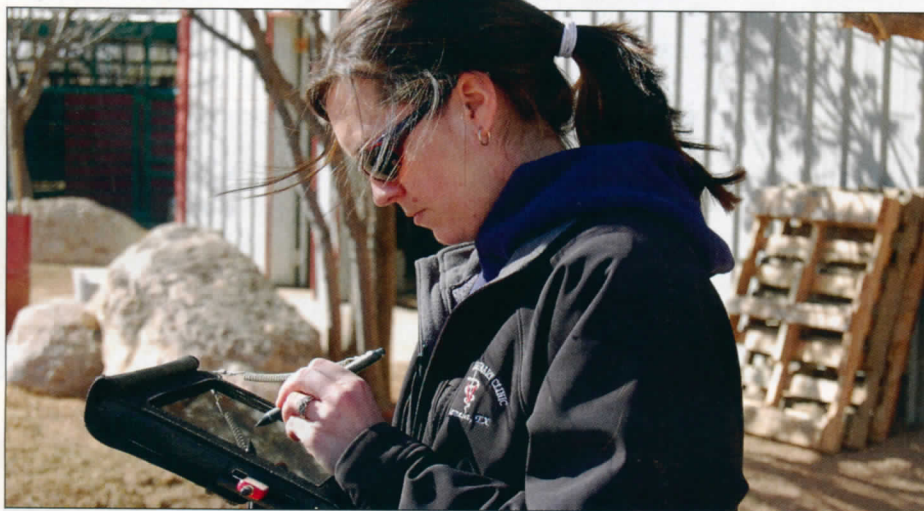


# Lameness Locator Moves Equine Veterinary Technology A Step Ahead

While not without its detractors, some vets believe this system helps make subjectivity less of a factor in lameness exams



*Dr. Kacey Tweeten-King of Brock Veterinary Clinic in Lamesa, Texas, reads the Lameness Locator for an evaluation of a perfect candidate for the machine. The mare's lameness was mild, and results showed problems in two limbs.*

By John Bradshaw

**P**erforming lameness examinations has never been an exact science. Even the best equine veterinarians do not always agree on the cause or even the location of difficult lamenesses. Now, a relatively new piece of veterinary technology is taking the subjectivity out of lameness exams.

The Lameness Locator was nearly 20 years in the making, but it is now gaining traction and popularity across the United States. It is not advertised as a replacement for good veterinary skills and knowledge, but as another tool for veterinarians, and perhaps soon for horse owners and even farriers.

The machine is particularly useful for identifying subtle, multiple and compensatory lamenesses, and assessing the effectiveness of nerve and joint blocks.

## Development And Use

Kevin Keegan, an equine veterinarian and professor at University of Missouri's College of Veterinary Medicine, set the wheels in motion in the early '90s with a research project on identifying lameness through motion analysis. Over the years, and with the help of co-inventors P. Frank Pai and Yoshiharu Yonezawa, the Lameness Locator was born. The first unit was sold late in 2009, and the steadily rising number of machines in use today is over 50, 12 of which are in vet schools.

Marketed by Equinosis, Keegan's limited liability corporation headquartered in Columbia, Mo., the Lameness Locator measures asymmetries of vertical torso acceleration to identify which limb or limbs have a problem, the severity of the lameness and in which portion of the stride the pain occurs. It cannot pinpoint the exact problem or

area within the limb, and the data provided by the machine is fairly complex. There is no big red X that marks, for example, an aggravated navicular bone or sore hock. The veterinarian must still locate the exact cause of the lameness and, hopefully, cure it.

Three inertial sensors placed on the horse collect data. There are accelerometers on the head and pelvis, and a gyroscope on the right front pastern. This information is transmitted wirelessly to a tablet computer. It is an odd-looking thing to watch a horse trot around with the sensors attached, particularly the sensor on the head, which is fastened to a foam pad connected to the halter, right between the horse's ears.

## New Tool, But An Expensive One

Brock Veterinary Clinic in Lamesa, Texas, uses a Lameness Locator on certain cases. Bo Brock, DVM, is a fan of most new lameness technology, and says veterinarians are now diagnosing things they could not even see 15 years ago. Brock and the other veterinarians at the clinic use the machine on about a quarter

*One accelerometer is attached to the horse's poll atop the foam pad connected to the halter. A matching sensor is attached to the pelvis with adhesive tape.*

