



Destron Fearing™

Identification

Being able to tell your unique horse apart from any other can be achieved by a variety of means

Overview

The permanent, tamper-resistant, and accurate identification of horses provides positive proof of ownership. The identification of race, performance, sale, and show horses, broodmares, and stallions can be achieved rapidly and confidently using a variety of methods. Even backyard pleasure horses benefit from some form of identification in case of escape or emergencies/natural disasters.

Multiple methods of identifying horses exist. In many cases, selection of the most appropriate identification technique is based on the owner's preference. Alternatively, the identification technique is mandated in some breeds/disciplines. Thoroughbred racehorses racing on Thoroughbred Racing Association tracks, for example, must have a lip tattoo as per The Jockey Club's regulations. Similarly, the Arabian Registry uses freeze branding to identify purebred Arabians.

It is important to note that with the exception of DNA (genetic) testing and blood typing, none of the available identification techniques is foolproof. Markings and brandings can be tampered with, and lip tattoos can fade or become mottled over time making the tattoos unreadable in some cases. The most common methods of equine identification are described herein.

Permanent Physical Traits

In its simplest form, equine identification can be achieved using "identification forms" that record signalment, conformation, appearance (e.g., coat color and markings), and individual marks such as whorls (trichoglyphs), peculiar marks, or scars. The owner is also encouraged to take multiple photographs of the horse from various angles and in different seasons. Since chestnuts are distinctive to each horse, just like human fingerprints, impressions of the chestnuts can be created using fingerprint-like technology.



ANNE M. EBERHARDT

The microchip used in horses is about the size of a grain of rice. The transponders are enclosed in a glass vial implanted in the nuchal ligament about halfway up the horse's neck.

Lip Tattooing

Lip tattooing was designed by The Jockey Club in the early 1900s to eliminate cheating by "ringers," or horses that look alike. An unalterable tattoo is placed most commonly on the inner aspect of the upper lip. The tattoo consists of a letter that corresponds to the birth year (e.g., the letter A corresponds to horses born in 1997, B for 1998, etc.) which is followed by a series of 5 numbers.

While lip tattoo kits are commercially available, it is widely recommended that the tattoo be created by an expert. Tattooing racehorses is also used by Quarter Horses, Appaloosas, and some Standardbreds.

Freeze Branding

Freeze branding is used for many horses, including Standardbred racehorses. The brand is created by applying a super-cooled branding iron (soaked in liquid nitrogen) usually to the horse's neck. The iron is placed on the skin for only a few seconds in dark-coated horses, but up to 45 seconds in light-coated horses. In dark-coated horses

the hair that grows back after branding is white, while the longer application in light-coated horses results in hairless markings.

Hot Iron Branding

Likely the oldest method of permanent identification, hot iron branding involves the application of a hot iron or marker to the horse's skin to make a distinctive mark (pattern) and/or number. A research study published in the July 2009 edition of the *American Journal of Veterinary Research* reported that the pain associated with hot iron branding is significantly more painful than microchipping, an alternate permanent identification method, and should be abandoned where possible.

Microchipping

Microchipping horses uses transponders about the size of a grain of rice enclosed in a glass vial implanted in the left nuchal ligament (about halfway up the horse's neck). The transponder contains a unique 15-digit alpha/numeric code that can be read by a radiofrequency identification (RFID)

reader. Each code is referenced in a registry so the animal can be identified.

Horses can subsequently be “scanned” with a hand-held device that reads and displays the horse’s number. All microchip numbers are registered with the microchip company to reunite horse and owner in cases of separation.

Some countries in the European union require a microchip to identify horses.

In 1994 Louisiana began requiring permanent identification in all horses using a brand, tattoo, or microchip. More than 70% of Louisiana horse owners chose to microchip their animals.

Following Hurricanes Katrina and Rita in 2005, microchip manufacturers reported they experienced an increased interest in microchips, presumably due to the microchips’ help in recovering animals following the hurricanes.

Microchips occasionally can migrate, and rarely horses will require re-implantation with a new microchip.

Blood Typing and DNA Testing

Blood typing was developed approximately 30 years ago, prior to DNA testing.

Unlike in humans where there are only three blood types (A, B, and O), horses have eight: A, C, D, K, P, Q, T, and U. By establishing a horse’s blood type and performing an additional test called “electrophoresis” on a blood sample (which separates the proteins in the blood sample by differences in electrical charge), an owner will have a permanent and unalterable identification of a horse.

DNA testing is achieved by collecting the genetic material from the rootbulb located at the end of the hairs. Usually only 5-10 hairs from the mane or tale are required. The turnaround time is usually a few weeks, so owners in a hurry to identify their horses should consider another option.

Because it is not obvious which horses have been blood or genetically tested, and since there is no visible brand, thieves might not be deterred from stealing horses tested by these methods.

Emerging Techniques

In 2000 a group of Japanese researchers reported the use of iris (colored part of the eye) recognition biometrics for horse identification. This method was tested

FAST FACTS

- Positive proof of ownership in cases of theft, escape, or emergencies/natural disasters is best achieved via some form of identification technique.
- Common methods of equine identification include lip tattooing, freeze branding, and microchipping
- Aside from blood typing and DNA testing, no available identification techniques are foolproof.
- Emerging identification techniques include iris recognition biometrics, which use a special camera with an infrared imager to illuminate the eye and obtain a high-resolution photograph.

in 100 horses and proved to be highly accurate in equine identification. Iris recognition biometrics, which is currently used in humans, uses a special camera with an infrared imager to illuminate the eye and obtain a high-resolution photograph.

The detailed structure of the iris is mapped, recovered, and stored for future identification. At present, this technology is not commercially available for equine identification. ◀

LifeChip®

Permanent Identification

Advantages

- Permanent Identification
 - Provides Proof of Ownership
 - Increases Ease of Interstate Travel
 - Accepted by Most Breed Associations
- ISO Compliant Number
 - Individually Unique 15 Digit Number
 - Easily Read by Any ISO Compliant Reader
 - Meets USDA Standards for Disease Surveillance
- Special Features **Exclusive** to LifeChip
 - Bio-Thermo® Technology
 - Monitor Individual Horse Body Temperature
 - BioBond® Technology
 - Secures Microchip to Injection Site

[Click Here to See Instructional Video](#)

Bio-Thermo® Technology

- Increases Safety for Reading Temperature
- Provides Quick and Easy Temperature Reads
- Best Utilized when Tailored to an Individual Horse Temperature Profile



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Comparison of Temperature Reading Between LifeChip and Rectal Thermometer

Animals	Conclusions
- 52 Welsh pony foals - 6-10 months old	- Thermal sensor appeared to have potential use for initial screening of body temperature in equids at ambient temperature
- 30 Quarter Horses - 2 years old	>15.6C. (J Am Vet Med Assoc 2008; 233: 613-617)

Contact Your Veterinarian
For More Information
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The Most Advanced Microchip Available

