**Equine Identification Methods**

**DISCOVER WAYS TO PROVE YOUR HORSE IS WHO HE IS**

IDENTIFICATION METHODS can help owners locate stolen horses or those lost during natural disasters, prove the correct horse is at a show or in the sales or breeding barn, and track infectious disease exposure within a population.

While some breed organizations require specific forms of identification (ID), such as lip tattoos in Thoroughbred racehorses and freeze brands for Bureau of Land Management mustangs, there are a variety of methods that any owner can use to identify individual horses.

**PERMANENT PHYSICAL TRAITS**

Some ID forms, like passports, give a detailed description of a horse’s physical characteristics. Such forms record signalment (age, sex, breed, etc.), conformation, coat color, white markings on the head and limbs, whores, peculiar marks, and scars. A horse’s chestnuts are also distinctive, just like human fingerprints, and chestnut impressions can be created using fingerprintlike technology.

Many forms require veterinarians to hand draw the above-described markings. The Fédération Equestre International and United States Equestrian Federation indicate that photographs have “major limitations.” Older photographs might not reflect what the horse currently looks like. Printed photographs can decay, angle and picture quality and a horses’ positioning can distort its appearance, and digital photos can be altered. If you do choose to rely on photos, keep them up-to-date, and take multiple photographs of the horse from various angles and in different seasons.

**LIP TATTOOING**

Originally performed as early as the late 1800s, The Jockey Club adopted lips tattoos in the early 1900s to eliminate cheating by “ringers,” or horses that look alike. An unalterable tattoo is placed 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.) followed by a series of five numbers.

Lip tattoo kits are commercially available; however, it’s widely recommended that people with tattoo training and experience apply them.

**BRANDING**

Hot branding is one of the oldest equine identification methods. Still widely used, hot branding involves applying a hot iron or marker to the horse’s skin to create a distinctive mark (pattern) and/or number. Hot iron branding produces the equivalent of a third-degree dermal (skin) burn and does not always effectively identify the horse, especially when digits are used instead of symbols. Further, hot branding is significantly more painful than microchipping, and one research team discourages it. That said, another study found that both hot iron branding and microchipping caused similar physiological (increases in heart rate and cortisol levels) and behavioral (aversions) changes indicative of stress, prompting researchers to conclude that microchip implantation was as stressful as branding in foals.

Freeze branding leaves a permanent mark, leaving white hair where the irons are applied. All microchip numbers are registered with the microchip company to prove identity and/or reunite horse and owner in cases of separation. Microchips occasionally can migrate, but only rarely will horses require reimplantation with a new microchip. Overall, studies show microchipping is a useful method of equine ID. Further, smaller microchips are now available that are reportedly highly reliable.

**BLOOD TYPING AND DNA TESTING**

Scientists developed blood typing approximately 30 years ago. While humans have only three blood types (A, B, and O), horses have eight: A, C, D, K, P, Q, T, and U.

Genetic (or DNA) ID can easily be performed by collecting the genetic material from the root bulb located at the end of hairs. The process usually only requires five to 10 hairs from the mane or tail.

**AEEP Stamp of Approval**

According to the American Association of Equine Practitioners’ Equine welfare committee, “Permanent ID (e.g., microchipping, lip tattoo, freeze branding) of each horse is an economical, and humanetracking mechanism.”

**MICROCHIPPING**

Transponders (microchips) enclosed in glass vials can be inserted through a needle into the left side of the nuchal ligament, about halfway up the horse’s neck. They are small—about the size of a grain of rice—and contain a unique 15-digit alphanumeric code that can be read by a hand-held radiofrequency ID (or RFID) scanner.

**Identity Theft!**

It is important to note that with the exception of DNA (genetic) testing and blood typing, none of the available ID techniques described are foolproof. Markings and brandings can be tampered with, and lip tattoos can fade or become mottled over time, making them difficult read or even impossible to read.
Turnaround time is typically a few weeks, so owners in a hurry to identify their horses should consider another option.

Both methods are permanent and unalterable. However, horse thieves might not be deterred from stealing horses not identified using an alternate technique that produces a visible brand or tattoo.

**IRIS SCAN TECHNOLOGY**

In 2000, Japanese researchers reported the reliability of iris scanning in horses. The Animal and Plant Health Inspection Service adopted iris scanning in March 2013, stating that no two irises are alike and that iris scans are more accurate than human fingerprints. A noninvasive high-resolution camera produces a digital photograph of the iris and stores the image, which serves as a tracking system for horses.9

**EMERGENCY IDENTIFICATION**

In cases of natural disasters that might separate you from your horse, consider attaching contact information to him using medical ID bracelets around his pastern, paint or permanent marker on his hooves, or livestock chalk on his body. Finally, permanent ID techniques can improve equine welfare. Comprehensive ID systems instituted at critical control points such as horse fairs, import/export locations, competitions and other group rides, riding schools, slaughterhouses, and rescue centers can identify and track horses to safeguard their welfare.10

**KEY REFERENCES**