

Just How Old is Your Horse?

Find out what it means to be “long in the tooth!” Part II of a 2-part series designed to help you determine your horse’s age.

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In the previous issue of *ec* magazine (Winter 04), we discussed the changes that occur in teeth of young horses up to age of 5 years. In this article, I will continue the discussion on aging the horse that is 6 years and older, by learning to evaluate the shape and changes in the lower incisors.

Remember: all deciduous, or baby teeth (also known as caps), have completely shed or erupted by the time your horse is 5 years old. So now we must rely on the knowledge of how the tooth changes in shape and the changes that occur on the chewing surface. While the following article will help you to age your horse, it is important to realize the accuracy of age determination decreases significantly as your horse grows older.

When looking at the chewing, or occlusal surface, of the lower incisors, it is important to realize the tooth will change in its overall shape. This change is characteristic to the incisors but not to the canines, premolars or molars. Note the comparison of the horses’ mouths in figures 1 and 2.

In fig. 1, the teeth of a 6-year-old are elongated in a side-to-side direction, while the teeth in fig. 2 of an 18-year-old are elongated in a front-to-back direction. The incisor teeth erupt into wear in this horizontal direction, and as the horse ages the incisors become more oval around 10 years, triangular around 15 years and then more rectangular (front to back) around 20 years.

Observing the shape of the 03’s (See Triadan Numbering System) from the side is also useful. In horses less than 10 years of age, the 03 teeth are usually more wide than tall. Around 10 years of age, the tooth appears almost square then progressively gets taller as the horse ages. That is why you get the “long in the tooth” appearance in older horses as in fig. 3. The blue arrows note the tall versus wide principal. The black arrow points to the Galvayne’s groove, and as we discussed in part one, is not a consistent valuable tool for aging older horses.

Now that we have noted the overall shape, let’s look at the center of the tooth for different structures and shapes that help in age determination. As previously discussed, the deciduous tooth is replaced by a permanent tooth, which initially has a hollow center looking like a “cup,” hence its name. The cup is the infundibulum of the tooth, which is an enamel infolding in the chewing surface. In fig. 4, the black arrows point to the dark cups on the 303 and 403. This cup will begin to wear down and the

hollow appearance will disappear over time as the horse chews the grass, hay and grain in his normal diet. The lower half of the infundibulum is filled with cement and is called the "mark" or enamel ring. See the blue arrows in fig. 4 and the black arrows in fig. 5.

The mark will initially be long and oval, then change to a more rounded shape by 15 years of age. The marks will usually disappear by the time your horse is nearing 20 years old.

The dental star will usually appear in the central incisors, or 01's, around 4-5 years, the 02's around 5-6 years and the 03's around 6-7 years. As the horse ages, the dental star will have a white spot appear in the center of the star. Fig. 6 shows a 4-year-old with dental stars in the 01's and fig. 9 shows dental stars in all lower incisors in a 10 year old.

As you can see, the process of aging a horse by the teeth is not an exact science. Other considerations must be made for horses that have irregular incisors, such as those with a diagonal angle or a parrot mouth (see fig. 8). The irregularities give uneven wear to the opposite teeth, thus changing the normal architecture and wear of the tooth. The irregularities may be caused by defects within the incisors themselves, or may be a secondary problem resulting from molar malocclusions such as caudal hooks, stepped teeth, missing teeth or a wave mouth.

Problems in horses over the age of 20 may be more severe. The equine tooth will typically last 25 years, and as the horse ages, the tooth will wear shorter and shorter. With a short root, the tooth is not as strong and is more vulnerable to uneven wear caused by irregular teeth. Problems are even worse if older horses have had poor or inadequate dentistry throughout their lifetime. The entire dental arcades need to be balanced to give comfort to the horse and balance to the mouth. Your horse should have dentistry that is designed to balance the mouth and is more than "just a float." If quality equine dentistry is performed to balance the arcades, the long-term results will be obvious. The teeth will wear more evenly, causing fewer stresses on the jaw during chewing or riding, and a mouth that can be more accurately aged.

So when you go look that gift horse in the mouth, you will have an idea how old he should be. I've seen plenty of horses 20 years and older that were supposed to be 8-year-olds. Remember: old horses have rectangular teeth that are long from front to back. I hope this helps further your knowledge of horses. If you have any queToots Bannerstions, you may contact me at 352-466-0702.

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Triadan Numbering System

The Triadan system provides a consistent numbering system in animals of all species. In all, the horse has 42 teeth. The upper and lower jaws are divided into quadrants, 1 through 4. The first digit in each number in the Triadan system signifies the quadrant (right upper, left upper, left lower and right lower). The second and third digits designate the tooth location within the particular quadrant. These digits follow in sequence, from the middle of the jaw, or between incisors 101 and 201 on the upper jaw, and 401 and 301 on the lower jaw.