

Just How Old is Your Horse?

Find out for sure how old your horse is – just by examining his teeth! Part I or a two-part series.

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You are in the market for a new horse and you receive a message that one has become available that fits your ideal description. He big, quiet and just the right color, but no one is sure how old he is. As you know, a horse's age can be an important purchasing factor.

Men and women began determining horses' ages by changes in their teeth more than 2,500 years ago. Several papers have been published on this matter, but an Australian horseman named Sidney Galvayne wrote the first modern work in the 1800's. Galvayne discussed the use of the groove in the third incisor that was later appropriately named "Galvayne's Groove."

Unfortunately, studies later determined that his information was invalid as the groove may be absent in more than 50 percent of horses between 10 and 30 years of age.

Think you'd like to evaluate your horse's teeth? To do so, focus on the lower incisors, which are the six teeth just behind the lower lip. Changes that occur on the chewing surface and a knowledge of the eruption tables are the main criteria used for aging. This article focuses on the newborn to the 5 year old, and the next issue of ec magazine will contain an additional article focusing on the aging teeth of the adult and geriatric horse.

Using the Triadan System (fig 1.)

figure 1

Typically, foals are born with the four central incisors (teeth 101-401). The next set of incisors (see numbers 102-402 in fig. 1) arrive at 2 to 3 weeks of age, and the final set of incisors (103-403) at 6 months. Fig 2. shows a yearling colt's incisors.

figure 2figure 3

The eruption of the deciduous incisors (also called "baby teeth or caps") begins when the horse is 2 ½ years old. At that time, the 101, 201, 301 and 401 "caps" begin to shed, due to absorption of the deciduous tooth roots and by being pushed out by the four new permanent teeth. This process will start with the 01 caps at 2 ½ years, and the permanent teeth will be in wear 4-6 months afterward. A 3-year-old will look like fig. 3 with the larger, more rectangular permanent 01s in wear.

The 102-402 caps will erupt one year later at 3 ½ years (fig. 4) with the 02 caps gone and the permanent teeth exposed but not in wear. Fig 5 shows a side view of a 4 year old with the 02s in wear and the 03s are yet deciduous teeth. The 103-403 caps will erupt one year later at 4 ½ years and be in wear by 5 years of age. Fig. 6 shows a 5-year-old with the 03s in wear and a slight incisor under bite with the lower incisors protruding forward of the upper incisors.

figure 4 figure 5 figure 6

As incisor changes occur in the horse's mouth, please note that activity also takes place with other teeth. Canine teeth (04s), sit just behind the 03 incisors. Canine teeth are permanent teeth and are mostly found in male horses. The canines will typically erupt at 4 ½ -5 years of age. The wolf teeth (05s) are the first premolars, coming in as permanent teeth and usually erupting at 6-9 months of age. Wolf teeth should be removed prior to riding your horse because they can interfere with the bit and become a hindrance to training.

The premolars are three sets of four teeth and are numbered 06, 07 and 08s. They typically erupt at 2 years 8 months (06s), 2 years 10 months (07s) and 3 years 10 months (08s). Your horse will shed and replace 24 teeth from the age of 2 ½ years to 5 years. It is also important to monitor the eruption of the teeth as sometimes the deciduous teeth do not come out normally and can cause disfigurement. Incisor caps occasionally must be removed manually.

Fig. 8a shows a 3-year-old with the lower incisors displaced caudally by the caps (note the normal large upper 01s). Fig 8b shows a 4 ½-year-old horse with all of the caps as well as all the permanent teeth – for a total of 24 incisors!

figure 7 figure 8 figure 9

As the incisors erupt and come into wear, changes occur on the occlusal or "chewing" surface. As each incisor erupts into wear, the infundibulum (an enamel infolding) is noted in the center of the incisor and is simply called a "cup." Fig 9 shows a 3-year-old with cups in the incisors. The cups are present at eruption and will disappear with the following schedule: 01s at 5-8 years, 02s at 7-11 years and the 03s at 9-15 years. This cup may be empty or filled with feed particles and will continue to wear for years until reaching the cement core. Once reaching and exposing the cement core with the surrounding enamel ring it is then called the mark. The mark is used in aging adult horse and will be discussed more in the next issue. The dental star (fig 9) is a yellowish-brown structure on the chewing surface that becomes more apparent with wear.

figure 10 The dental star will usually appear in the central incisors (01s) at around 4 ½ years, the 02s around 5 ½ years and the 03s around 6 ½ -7 years. As the horse ages, the dental star will have a white spot appear. We'll discuss the dental star in the next issue of ec magazine.

As you can see, estimating the age of horses by their teeth it is not an exact science, and there are variations according to breed, environment and pasture access. Use these illustrations to practice, and if you have any questions, feel free to contact me directly at www.riversideequine.com or (352) 466-0702.