## The Genetics of "GREY VERSUS ROAN" - Kathleen@TeamValor.com



Subtitle: How Grey Differs from Roan, and Why The Jockey Club Needs to Stop Describing Thoroughbreds as "Grey or Roan."

First, let me get this off my chest – when describing a horse's appearance, the only acceptable spelling of the genetically controlled lightening of the coat color is **GREY**, not GRAY. Spelled with the letter E, it is a descriptor, an adjective. Spelled

with the letter A, it is a person's name.

My submission in late May covered the genetics of grey and promised to cover the phenomenon of "roan" in a forthcoming edition. If you did not save that edition and wish to re-read "The Genetics of Grey" drop me an email at the link above and I will send that article to you.

As mentioned in that article, "Grey" is the gradual lightening of some other overall color of the horse's coat. "Roan" is a coloration pattern that remains constant throughout the life of the horse. Roan and Grey are completely different descriptors and are not interchangeable.

Let me reprint here a paragraph and photos from the Grey article:



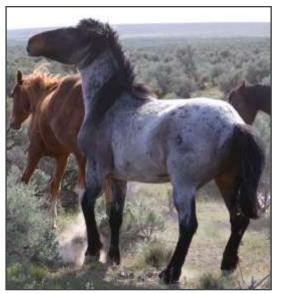
The series of photos above show the same grey horse (Holy Bull) at different stages of maturity. Jockey Club records describe Holy Bull's color as "grey", but if they were going to be genetically accurate, it would be described as "dark bay/brown with grey modifier."

Note above that Holy Bull, who was born a dark steel grey, continued to lighten throughout his lifetime and today appears virtually white. This is typical of a grey horse.

Roan is a coloration pattern wherein the head and extremities are colored, while the body, or barrel, of the horse is light. (Here is an example of a true roan in the photo at right.) Note the dark face, legs and tail. The horse in this picture was born like this and will remain like this. This is tell-tale indicator that this horse is a roan and not a grey.

Compare this roan horse to the grey in the photos above. Note that Holy Bull's face and legs have lightened over time. This is tell-tale indicator that Holy Bull is a grey horse, and not a roan horse.

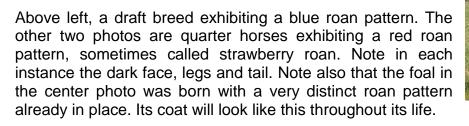
The Jockey Club has a maddening policy of listing grey horses as "Grey or Roan" when registering foals. Even TVG commentators are daily heard to describe certain runners as a



roan, when clearly the horse in the discussion is grey. But who can blame them when the Daily Racing Form, taking its cue from the Jockey Club, lists the horse as a "grey/roan colt?"

Is it possible to see a true roan thoroughbred? In a word - NO. You will remember from the Genetics of Grey article that "it takes a grey to make a grey." And that it true because the grey gene is dominant to any other inherited color. The same is true of Roan. It takes a roan to make a roan. Because there <u>are</u> no roan thoroughbreds, there can logically <u>never be</u> any roan thoroughbreds without the introduction of some other breed in which the roan pattern naturally appears.

Quarter horses and draft breeds frequently see roan foals. But thoroughbreds never do.







That brings us to the oddball coat of **Lucky Chappy**. Now that you've seen examples of grey and roan, which do you think Lucky Chappy is? HA – trick question! Lucky Chappy is neither grey *nor* roan!

He is not grey because he had no grey parent. For that matter he had no roan parent either. And he can't be roan anyway because he is a thoroughbred and there are no roan thoroughbreds. So what is he?

Lucky Chappy is bay. His strange coat color phenomenon comes from a color gene modifier called Rabicano. Most rabicano horses exhibit this modifier as a ring-tail, also called coon-tail for obvious reasons. This usually expresses itself as white hairs

at the base of the tail, but otherwise the coat appears normal. In Lucky Chappy's case, the rabicano expression extends into the body and makes him appear at first glance like a roan. The difference is the white at the base of the tail – the signature stamp of the rabicano modifier in action. Lucky Chappy's color comes from the rabicano color modifier, with the "volume" turned way up.

So, Jockey Club and TVG, if you are listening, stop calling greys roans, and stop calling Lucky Chappy grey.