

# Just About Everything You Need to Know About Champagne Colored Horses

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## A Brief History

The champagne dilution appears to be a recent phenomenon. While we have seen pale skinned horses in centuries old paintings that “look” champagne, it is more likely they were double cream dilutes or cream-pears. The champagne gene appears to be American, as we have not yet seen the color in the current Spanish or European breeds, the ancient breeds, such as Icelandic horses and Shetland ponies, or in any of the breeds of South America, Russia, India, China, or Arabia. So far, the champagne gene has only been isolated in breeds of American origin. These include the American Quarter Horse, American Paint Horse, American Appaloosa, American Saddlebred, American Cream Draft, Tennessee Walking Horse, Missouri Fox Trotter, Kentucky Mountain Saddle Horse, American Miniature Horse, and crosses from these breeds. One only needs to review the names of these breeds to realize the gene has its foothold in North America.

The champagne gene seems to have originated in full sized horses. We have no evidence to suggest the gene exists in any of the purebred pony breeds. The gene has been introduced into the Miniature Horse through down-sizing, and there are quite a few representatives in that breed.

The first known and photographed champagne colored horse was Golden Lady, a Tennessee Walking Horse mare born in Tennessee in approximately 1910. Old Granny, an American Cream Draft horse was born in 1913, but there are no known photographs. The first photographed champagne American Saddlebred, Jonquil, was born in 1920. (This line is the oldest known, and may extend well into the 1800’s.) The first known registered champagne colored Quarter Horse was Triangle Lady 10, born in 1930. Gold Bonnet was the first known registered champagne colored American Paint born in 1964. The first known champagne American Miniature Horse, Hidden Meadows Grulla, was born in approximately 1974. Interestingly enough, all of these “first” horses are mares.

The common ancestor for all champagne horses appears to have been the Saddlebred, or the horses used to produce the original Saddlebreds. Analysis of the champagne gene and surrounding “markers” indicate there was just one mutation to champagne - so all known champagnes are believed to have descended from the same horse. The gene has not been traced before the mid 1800’s, so it is quite likely the original mutation occurred around that time - or was very rare in the population if it occurred earlier. The gene apparently spread to Tennessee where it appeared in the Walking Horses, to California where it was popular in the “Parade Horses,” and to Texas where it was first found in Quarter Horses.

## Champagne is not Cream

Champagne is a dilution gene which is somewhat similar to the cream gene. (The gene that causes palomino and buckskin.) Yet champagne is dissimilar to the cream gene in many ways. While, phenotypically, they may resemble one another, they are very different genes, and should not be confused with one another.

Champagne was once thought to be a complete dominant, but since the champagne DNA test became available, we now know there are some rather mild but distinct differences between champagnes with one champagne gene, and champagnes with two. The hair coat, the skin, and the freckling appear to be lighter on the homozygous champagnes, but the eye color is not. So while this makes champagne appear to be an incomplete dominant, the incompleteness is not so pronounced as it is in cream.

Cream is a more typical incomplete dominant. A horse with one cream gene is generally called a “single dilute,” and these are palominos, buckskins, smoky browns and smoky blacks. A horse with

two cream genes, commonly known as a “double dilute,” is further diluted to cremello, perlino, smoky brown cream or smoky black cream. While the single/double difference is subtle in champagnes, it is dramatic in double creams.

### **Champagne Shades**

The champagne dilution on a chestnut base coat is called *gold champagne*. This horse will be born in a reddish coat, with clear pink skin, and bright blue eyes. Here’s where we get into a lot of trouble, however. Some palominos are also born with clear pink skin, bright blue eyes and reddish coats. In fact, *most red based foals (chestnut, palomino, red dun) are born with pink skin and this is NOT to be confused with champagne!!!! Pinto blue eyes are not to be confused with champagne!!* Generally, non-champagne foal skin will start to darken in a matter of days. Non-champagne blue eyes will rapidly change color in as little as a few days. A baby palomino eye may go from blue to grey/blue to muddy brown quite rapidly. Baby gold champagne eyes will stay blue for several months, and sometimes up to a year. The blue baby champagne eyes often start to yellow, usually around the outside edges first, when the foal is about two months old. This often imparts a greenish tint to the eye. The eye will gradually darken to amber, or light brown. (Palominos born with blue or grey eyes can have amber/light brown eyes at maturity, also.) The reddish champagne foal coat will shed to gold. The adult shade may range from cream, to dark gold, and rarely, near chestnut. The red mane and tail at birth will generally shed to white. Some gold champagnes have manes and tails which remain the same shade as the body, but these are rather unusual, and tend to be of the darker shades.

So. How do you tell a palomino from a gold champagne? Sometimes it’s not easy. There is a DNA test for both the cream gene and the champagne gene, so this would be the easiest way to distinguish between the two dilutions. Without DNA analysis, the skin would be the most important diagnostic tool when identifying champagne. Adult champagnes will always have light colored skin. The freckling generally starts to appear at about two to three months of age. The skin sometimes stays pink, but often darkens to a light mauve by the time the freckles start to appear. The freckles may start light, then darken to brown or grey. In intense sun, the skin on champagnes will “tan” to a somewhat darker shade, especially on the parts exposed to the sun. In order to be certain of the diagnosis, the best place to look for skin color is under the tail. This area is free from hair, and coverage by the tail protects the area from the sun. When the tail is lifted, a gold champagne will have light colored skin with darker freckles. Sometimes the freckles are close together on older horses, and you may need to stretch the skin to see the underlying pink. When you wet the horse down, you can see the champagne freckles all over the skin. A palomino will have black, grey, or sometimes purple skin, frequently with small pink speckles. These pink speckles on dark skin are not to be confused with champagne freckles. Champagne freckles are dark spots on light skin.

Every now and then, we find a palomino with deceptively light skin. These horses can usually be identified by pedigree analysis. (Or DNA testing for the cream and/or champagne gene.) Champagne runs in definite pedigree lines, and so does the cream gene. Champagne is a dominant gene which is always expressed. Horses do not “carry” champagne undetected. *A champagne horse must have a champagne parent. And, a non-champagne horse from a champagne parent does not carry the champagne gene undetected.* By studying the pedigree, and noting where the dilute lines go, we can often determine if the horse is a palomino or a gold champagne. Without the benefit of pedigree or DNA testing, we can tell the difference between palomino and gold champagne by progeny testing. Breeding a palomino to a homozygous (EE) bay, brown or black horse will produce buckskin, smoky brown, smoky black, bay, brown and black. Breeding a gold champagne to a homozygous (EE) bay, brown or black horse will produce amber, sable, classic, bay, brown or black offspring. Fortunately, buckskins are much easier to distinguish from amber champagnes than palominos are from gold champagnes.

The champagne gene on a bay base coat produces an *amber champagne*. This foal will be born with pink skin, bright blue eyes, and often a nearly bay looking coat with a darker mane and tail. Frequently, the foal coat is the same shade as the adult coat, which looks somewhat like a buckskin, only the points are brown, rather than black. Most buckskin foals are born with black skin, so this is an easy way to distinguish a buckskin from an amber champagne foal.

Many amber champagnes have light colored lower legs. This contrasts sharply to the black legs of a buckskin. Even those ambers with darker lower legs can be distinguished from buckskins by their light skin and brown rather than black points.

The skin on an amber champagne usually has a bit more color than the skin of a gold champagne, being somewhat more mauve. But the skin will remain light, and develop darker freckles, just like the skin on gold champagnes. The baby blue eyes go through the same color changes as the golds.

Champagne on a black base coat creates what we call a *classic champagne*. This is a most unusual colored horse, and is hard to mistake for any other color. The foals are born with pink skin, and bright blue eyes. The coat often does not change shade into adulthood, or may lighten only slightly during shedding. The color has often been compared to that of a Weimaraner dog, although the genetic basis is completely different. Adult classic skin is similar to that of an amber champagne, and the hair coat can only be described as a diluted black. This shade, more than the others, occasionally has an almost green tint.

Champagne on a seal brown base coat makes a *sable champagne*. These are slightly different than classics in foal coat, often appearing to be somewhat intermediate between an amber and a classic. They grow up to look like classic champagnes, much in the same way a seal brown horse closely resembles a black. Sables often have lighter colored muzzles, whereas classics tend to have muzzles that match the rest of their face. Classics can be separated from sables by DNA color testing for the brown agouti gene.

Other distinguishing features of champagne colored horses are reverse dapples (dapples darker in the center), and a shiny hair coat. These are not specific to champagne, however. Another feature is the evenness of the body color. Champagnes do not demonstrate “smuttiness” and they rarely show Bend Or spots. The body hair tends to be the same shade from belly to side to top line, and this lack of shading is often easy to spot from across the pasture.

## Champagne Combinations

### Champagne and Cream

Gold, amber, sable and classic are the four main shades. Other shades of champagne are combinations of champagne with the cream, dun, and silver (dapple) genes.

Champagne and cream genes enhance one another when they are combined. Resulting foals appear double diluted, and they somewhat resemble cremellos, perlino, smoky brown cream and smoky black creams at birth. (These champagne/cream combinations were formerly known as “ivory champagnes.”) This terminology is no longer used by the ICHR.) *Gold creams* (palominos with a champagne gene) look very much like cremellos, and show no trace of the red hairs a gold champagne demonstrates at birth. There is very little change in the foal coat at shedding. The eyes may rarely remain blue, but generally turn to shades of green (also rare) or more usually, amber. The eye color change on a champagne cream may not be complete for several years. The skin develops dark freckles just like a normal champagne, and this distinguishes them from cremellos in adulthood. In fact, often champagne-cream freckles are darker than straight champagne freckles, and this will clearly distinguish a double cream from a similarly colored champagne-cream.

Champagne added to a buckskin coat creates an *amber cream*. Amber creams are born with pink skin, blue eyes, a cream colored coat, and a darker (usually brown) mane and tail. Their blue eyes usually change to amber. The brown mane and tail remain in adulthood, making this a very

attractive colored horse. Just like ambers, some amber creams have light colored legs, and others will have brownish lower legs.

Smoky blacks with an added champagne gene are *classic creams*. These foals are darker in foal coat. It seems to take a while for the cream gene to dilute the black. At shedding, the coat may go to a cream color, but classic creams often retain quite a bit of pigment. We have seen several adult classic creams that closely resemble straight amber champagnes. They have chocolate colored manes and tails. The lower legs may be a shade darker than the body, or may be the same color as the body. Classic creams can be distinguished from amber champagnes by testing for cream and agouti genes.

Smoky browns with an added champagne gene are *sable creams*. These are very similar in appearance to classic creams. They can be separated from classic creams by testing for the brown agouti gene.

### **Champagne and Double Cream**

Coming soon!

### **Champagne and Dun**

Champagne can combine with dun, and this combination also dilutes the body color more than each gene would if working by itself. *Gold dun* foals are born a color which most closely resembles strawberry blonde in humans. As do all champagne foals, they also have blue eyes and pink skin. They have a darker dorsal stripe, but leg bars are usually diluted out, and difficult or impossible to see at birth. Foal coat color is the best tip-off that a gold is carrying a dun gene. These foals look very much like straight gold champagne horses when they mature, only they have distinct dorsal stripes and leg bars. The dun can be verified by DNA testing, if necessary. Most shades of champagnes can demonstrate countershaded dorsal striping, so distinguishing the true duns is often difficult.

Combining a dun gene with an amber champagne makes an *amber dun*. Amber dun newborns are a lighter shade than a straight amber champagne. Adult amber duns have a creamy (or light amber) colored body, a chocolate mane and tail, and darker dorsal stripes and leg bars. The ones we have documented so far have light lower legs.

A dun gene on a classic champagne will make a *classic dun*. The foal coat appears similar, or somewhat lighter than a regular classic foal coat, but may show dorsal striping, and possibly shoulder and leg bars. There are several definite classic duns on record with pronounced dorsal stripes and leg bars. Body color is light classic. We have seen another classic dun with a dorsal and shoulder stripe, but the leg bars appear to be absent. Again, as with the classic creams, black in these combinations does not seem to be affected as strongly as the chestnut and bay variations.

A dun gene on a sable champagne will make a *sable dun*. We have documented one of these, and she is indistinguishable from the classic duns.

### **Champagne and Silver**

Coming soon!

### **Champagne and Pearl**

This has not yet been documented, but not from lack of trying. The supposition is that there will be some additional dilution. Since pearl is a “weak” allele of cream, it is suspected the dilution will not be as strong as a regular champagne-cream.

### **Champagne and Grey**

Champagne and grey have an interesting effect on one another. The freckles on a grey champagne tend to be darker - often a dark purple, or deep navy blue. Some freckles may look

nearly black. We have several grey champagnes on record, and the amazing thing is that most of them do not grey completely to "white" as other horses do. The coat color appears to stabilize at a certain point, but maintains enough pigment for horses of any shade to be mistaken for pale golds. We have been inquiring about the incidence of melanomas on grey champagnes, and, thus far, have no reports of any melanomas being found. Along this same line, we have requested reports on skin cancers of any kind found on champagne colored horses, and have never received any responses. Our belief is that there is enough pigment in champagne skin to protect from basal and squamous cell carcinomas, and not enough melanin in the skin to increase the risk of melanoma in greys.

### **Champagne Pedigree Lines**

We have traced many of the champagne lines in Quarter Horses, Tennessee Walking Horses, Missouri Fox Trotters, Miniature Horses and American Saddlebreds. In the Quarter Horse, the main lines came from the Burnett and the Waggoner ranches of Texas. Champagne arrived at these ranches in the guise of saddle horse mares - either the golden parade horses from California, or the gaited horses from Tennessee.

We have not yet discovered all of the champagne lines, but new ones are showing up less frequently. In the Saddlebred, many of the lines were perpetuated by stallions, and these lines are easy to trace, and are very clear. In the Quarter Horse, the lines usually come through the mares. There was evidently prejudice against blue eyed male QH foals, and most of these appear to have been gelded. Some of the lines going to mares can't be verified, as many only had one producing descendent.

Known Quarter Horse champagne lines are from Cow Cutter Adams, Cow Mama, Ginger of Dunbar, Irish Lullaby, J Mare 64, Miss Tommy Raffels, Sallie Mae, Scooter Sue, Spun Silver, Tallisman, Tom B, Tommy, Triangle Lady 4, Triangle Lady 10, and Yellow Lou. There are several others that have not been completely mapped or verified.

There is one known line exclusive to American Paints, which goes to Gold Bonnet, a gold champagne tobiano mare. Other current Paint champagne lines come from the Quarter Horses noted above.

There appear to be two currently existing champagne lines in the American Saddlebred. (Several lines appear to be extinct.) One comes through Palomino Peavine (also known as Golden Cavalier), and the other stems from Cream Tonian. Most of the Cream Tonian line currently runs through Glenknoll's Moregold.

In the Tennessee Walking Horse, the original champagne line comes from Golden Lady. Current existing lines also include those from Big Yellow Chief, Bol's Harvest Moon, Bo-Mar's Gold Digger, Brooke's Class Act, Delights Top Warrior, Go Boy's Gold Insignia, Hall Allen, Jr. H., Joker's Yellow Man, Mack's Golden Girl H., Merry Go Boy's Rena, Merry Golden Lady, Robbie's Folly, Spades Miss America, Sunny's Pale Rider, and Sunshine A.

The main champagne line in the Miniature Horse comes from Dell Teras Hippy (who also sired cream dilutes), which generally run through Pine Trees Bonus. There are lines to Bond Bit O Luck, Hemlock Brooks Silk Lady, Hidden Meadows Grulla, Seven CS Cotton Candy, Strange Brew, Tribbles Poncho (who has been exported to Australia), and Tribble's Sugar.

Some of the champagne lines in the Missouri Fox Trotter come from the Tennessee Walkers. Others are from Comanche's Golden Lady, Dutch Hill Nell, Goldie Nod, King's Princess S., Lemon Drop, and Sunny May.

For more information about the champagne gene, contact the International Champagne Horse Registry. We are on-line at <http://www.ICHRegistry.com>. You can write to us at [mail@ICHRegistry.com](mailto:mail@ICHRegistry.com), or to ICHR, PO Box 4430, Paso Robles, CA 93447.