

Pinto Patterns

Tobianos are probably the most familiar of the pintos for a lot of people. They are perennial favorites for children's ponies, parade horses, and stars of television and movie westerns (despite years of exposure to my obsession with horse color, I still have not broken my own father of calling them "Tonto-horse-colored"). They remain popular today in both the real horse world and in our own miniatures.

What Tobianos Look Like

Tobianos look like white horses that have dark spots with smooth edges. Their face markings tend to be conservative - much like those found on solid horses - and the eyes are dark. Tobianos almost always have four white legs and the white on their body will cross over their necks, back or croup. The borders of the spots themselves are rounded and well defined, though the placement of many spots in one area can make the white areas appear jagged. With a tobiano, however, the key trait is the shape of the dark areas. Even in the most wildly marked tobiano, it is usually possible to see how roundish spots "grew together" to form the pattern (Figure 1).

Pattern Progression

In the most minimally marked tobianos, what is generally seen are high stockings that appear to come to a point along the side of the leg. This is different from the stockings found on sabinos, where the trailing edge tends to run up the front of the leg. There will typically be a small patch of white on either the neck or the withers. There may also be a small amount of white on the croup or at the base of the tail (which will turn the tail white, or at least partially white). In horses with a little more patterning, the area along the neck will spread down the topline, eventually joining with the white on the croup or tail. After this,

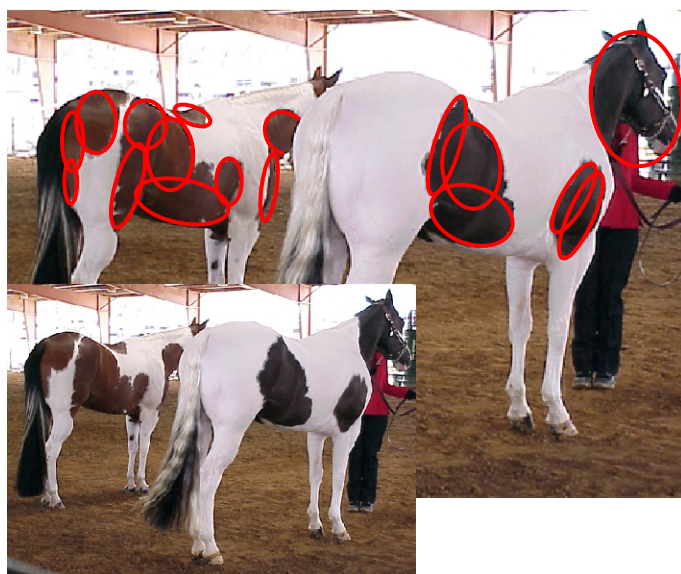


Figure 1. These two tobianos show how the circular spots have merged to create the pattern. Note that they are not actually perfect circles.



This gelding might be mistaken for a solid horse, if it weren't for the small line of white on his hindquarter and the patch on his neck. From his other side, where there is no white on his body, he looks like an ordinary solid horse. Tobianos with this little white are rare in most breeds.

the white tends to flow down from the top line towards the white on the legs, until the individual spots become more obvious.

When a tobiano pattern is about 60% white, it begins to take on the appearance of the "classic" tobiano with the dark head, chest and large spots on the flanks or hindquarters. This seems to be the genetic norm that this pattern gravitates towards, as most tobianos are marked this way.

When the pattern becomes more extreme, the body spots tend to be smaller and less numerous, until all that is left dark is the head and possibly a small area on the chest or hindquarters. It is likely that this is the most extreme expression of this gene, and that it is as far as the pattern will progress. Those horses which would qualify as Medicine Hats (those with less color on their heads) are most likely the product of overo genes in addition to the tobiano gene.

How the Tobiano (T) Gene Works

The tobiano pattern is the result of a dominant gene, so any horse that inherits it will be a tobiano. This also means that all tobianos have at least one tobiano parent, who had at least one least one tobiano parent, who themselves had a tobiano parent - creating an unbroken line of tobiano ancestors. Horses that carry one gene for tobiano (heterozygous) will produce tobiano offspring 50% of the time when bred to solid mates. If the horse is homozygous for tobiano (carrying two tobiano genes), then all that horse's offspring will be tobianos. This fact has made tobianos extremely popular in pinto breeding programs, because a homozygous horse will breed "true" for the color regardless of the color of the other parent. To date, there have been no proven cases of 100% color-producing overos.

For a horse to be a homozygous tobiano, it must have two tobiano parents. It is possible to identify a homozygous tobiano

without knowing the horse's parentage, though, thanks to a genetic test developed by UC Davis that can confirm that the horse is indeed carrying two copies of the gene. Many breeders test their tobiano stallions for homozygosity because mare owners like knowing there is no doubt that the resulting foal will be a pinto. Even without a test, homozygotes can often be identified by small, disconnected spots known as cat tracks. These spots vary, with some individuals displaying only a few while others are so densely speckled with them as to appear partially leopard-patterned, but they are found on most homozygous tobianos.

Colors That Can Be Confused with Tobiano

As a group, tobianos do not tend to show as much individual variation as the overo patterns. The majority of tobianos will fall into a fairly typical expression of the gene that will include a dark head, dark chest, and large spots (or grouping of spots) along the flanks and hindquarters. This consistent "look" makes this the easiest pinto pattern to identify. While it is not unusual to have some questions about which overo gene a horse carries when the horse displays only a small amount of white, or is predominantly white, in most cases the presence of the tobiano gene is pretty obvious. This is probably why many registries simply classify patterned horses as either tobiano or overo: essentially, tobiano or "not tobiano".

Nonetheless, there are occasional individuals whose patterns are less typical, which may lead to the horse being misidentified.

Occasionally tobianos are seen with so little white along the topline that they appear to be solid, though most will have at least a small amount of white in the mane, along the croup or at the base of the tail. What will differentiate these horses from minimally marked overos are their conservative face markings in relation to the high white seen on the legs. The other misleading trait that is seen in rare instances is dark legs. While one or two dark legs are certainly not typical of the pattern, they are occasionally seen in minimally marked horses of the Icelandic, Shetland and Miniature breeds. To date, all the cases I have seen were in those breeds, and it was always the forelegs that were dark. In most cases, these will be those individuals with extremely minimal patterns, but I have seen one individual where the placement of the pattern "slipped", resulting in white that would normally appear across her topline to be seen along one side of her body. Oddly enough, the white that would have appeared on the legs of that same side was missing, as if it had also "slipped" down past



These two Paints have the stereotypical look that most associate with the tobiano pattern: dark head, chest, and flanks.

her legs, while she had rather normal tobiano marking on her off side legs. She did, however, produce as any other tobiano would, with approximately half her offspring (from solid stallions) ending up as rather ordinary looking tobianos.

Breeds That Come in Tobiano

Because tobiano does not usually take the form of minimal patterning that can be mistaken for flashy markings, when it is present in a breed it is usually well known and easy to document. There are still those breeds where it is not particularly favored, but it does not "crop-out" in those breeds that have specifically selected against pinto patterns the way the overo genes do. The tobiano patterns are widespread across a wide variety of breeds and body types. In this country it is, of course, found in Paints, though many Paint breeders complain of a bias against tobianos in the halter classes. Tobianos do tend to dominate the Paint racing world though. Tobianos are also found in most of the Southern gaited breeds, including Saddlebreds, Walking Horses and Missouri Fox Trotters. For many years the tobiano stallion Chubasco dominated the Saddle & Bridle sire list, and did much to popularize the color in Saddlebreds. In



These small spots are called "cat tracks" and usually indicate that the horse is homozygous for tobiano. The tendency towards really dramatic cat tracks can run in families.

Walking horses, there is at least one line for this color that goes back to the early stud books, but nonetheless tobianos are still viewed by many breeders as "impure" or "tainted". This long-standing prejudice is part of what lead to the formation of the Spotted Saddle Horse registries in the mid-1980s. This bias has been changing in recent years, however, with the growing popularity of colorful horses, particularly in the flat-shod classes.

Some of the reasoning behind this bias may be that in this country the color has most often been associated with ponies. Indeed, a large number of grade children's ponies are tobiano spotted. Among registered ponies, however, the color is far less common. Of the British Native ponies, only the Shetland allows tobianos, while in this country it is the American Shetlands, Miniatures and Chicoteagues. Icelandics also have the tobiano gene, and may well be the source for the color in the Shetlands, since they are believed to be the older breed. At one time there were tobiano Hackneys, but the lines were lost sometime in the early 1900s.

In recent years, the color has been seen in Drafters thanks to the formation of the North American Spotted Draft Horse Association. While both overos and tobianos are registered, the first horse registered was the black and white tobiano Percheron-cross Pecos Chief, and it would seem that black and white tobianos remain extremely popular within that breed. There was also a line of tobiano Shires in the mid- to late-1800s, but like the Hackneys this was later lost, perhaps another casualty of that era's dislike of the gypsies. It was, after all, the gypsies who were so well known for their colorful horses, particularly heavy horses. In more recent years these horses, which are quite often tobiano-marked, have been marketed in this country as Gypsy Vanners. While not called specifically called "gypsy vanners", we certainly saw many unregistered tobiano drafters while visiting the British Isles four years ago.

The color is also found in some of the sport horse breeds, largely due to the popularity of stallions like Samber and Art Deco. In most cases, the color is coming from Dutch-bred horses, which likely inherited the pattern from the nearly-extinct Groningen. There is also a notation in Bonnie Hendricks' excellent book *International Encyclopedia of Horse Breeds* that there is a line of spotted Trakehners, accompanied by a photograph of a tobiano mare.

Within the Spanish breeds, the pattern is found in the Paso Fino and in American mustangs. I have also personally seen pictures of Andalusians bullfighting in Spain that were tobianos, though I would suspect they were unregistered and may not have been purebred. By looking at old paintings, it is clear that the Iberian horse did at one time come in tobiano.

Painting Tobianos

The real challenge to pintos is not the actual painting, but rather getting correct, accurate patterns. While the inexperienced eye may

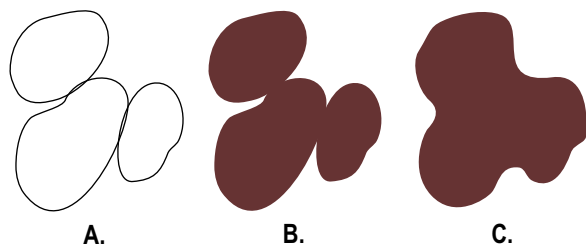


Figure 2. A. Here are the outlines of the interconnected spots, while B. shows how such a marking should appear on the horse. If the entire area were loosely outlined with curved lines, it would look like C., which is unrealistic.

not be able to explain the exact reason, inaccurate patterns will look somehow "wrong". Few things will help your paint jobs like a thorough understanding of how the patterns progress, and the small details that typify the various patterns. That said, there are some consistent problems that show up in models painted to represent the tobiano pattern which are pretty easy to avoid when the pattern is better understood.

The most common problem that I see on tobiano models is that the entire outline of a group of spots is rounded, instead of just the individual spot. This gives the area a "blobby" look, rather than the appearance of roundish spots that have overlapped as they grew together. This problem is easy to correct by painting over the blobs to have better definition to where the spots connect (Figure 2).

On the flip side, in more recent years many artists have taken the concept of interconnected spots to an unrealistic extreme. While it is true that the pattern does give the appearance of "round spots that have grown together", it should be remembered that those spots are not exactly round, and that their intersections with one another are not precisely defined in all instances. In the same category are those horses with many smaller spots that almost or only slightly overlap. While large numbers of elaborate interconnecting spots are visually interesting due to the play of positive and negative space, in many cases these models are far more artistically appealing than they are accurate or realistic. While basically roundish in shape and clean-edged, tobiano spots are not completely round or completely smooth, and they tend to overlap quite a bit (refer again to Figure 1 for a good example of just how much these spots tend to overlap). The spots also have a tendency to follow the direction of hair growth, or at least not to deviate strongly from it.



A lot of facial white on an otherwise tobiano-patterned horse (above) unusually indicates that the horse is also carrying one of the overo genes in addition to the tobiano gene. Horses that are homozygous for tobiano do not inherit any more white - on the face or otherwise - than other tobianos..

The other mistake, though less common now than it once was, is to have alternating areas of light and dark in the mane that do not correspond with the pattern. Mane color is determined by the coat color along the crest of the neck; white mane will grow from the white areas, and dark mane will grow from the dark areas. While some odd-colored hairs can appear without any visible color on the neck because there is a small light or dark spot on the skin right where the mane grows, large amounts of light or dark growing from the opposite

colored neck will look unrealistic. Finally, tobianos do typically have conservative face markings; stars, snips, strips and ordinary blazes. It would appear that even the whitest tobianos still keep their solid faces. Horses that have extensive white on the face, or dark areas that only partially cover the head or ears (medicine hats), probably carry one of the overo genes in addition to the one for tobiano. When painting a model like this, care needs to be taken that the breed being portrayed also comes in overo, or such a horse would likely never exist.

Like any other color or pattern, studying as many examples as possible, and referring to reference photos or clippings when painting will help avoid most realism problems. For those that do not have regular access to tobiano horses, The Paint Horse Journal (PO Box 961023, Fort Worth, TX 76161) comes out monthly and averages

more than 300 pages in an issue, and is a great reference for all the pinto patterns.

In the next issue, we will switch gears from one of the most widespread pinto patterns to one of the rarest - frame overo! The overo patterns happen to be my area of interest, so I look forward to future issues where we will look at each of them.

All text and images are © 2005 Lesli Kathman. This article is part of a series on horse color that originally appeared in The Hobby Horse News, a magazine for the model horse collecting community that is no longer published. The articles may be copied for personal, non-commercial use. Individuals may also offer the files for downloading provided they are properly attributed, but inclusion in commercial publications (magazines, newsletters, books) is forbidden unless written permission is obtained from the author.