

The Pigeon Genetics Newsletter, News, Views & Comments. The Pigeon Genetics Newsletter, News, Views & Comments.

(Founded by Dr. Willard .F. Hollander)

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"ON THE BRIGHTSIDE OF WHITESIDE".

The next two and possibly three Issues will be devoted to the study of the whiteside marking of both recessive reds and base coloured birds especially spread blue (Black) whitesides. Three avid Breeders have been working with these traits over a number of years , and they have shared their ideas and photos with us !

We begin with an American Breeder **Mr. Joe Power** and asked him to write this introduction to set the scene for his years of devotion to this colour trait. He wrote :



I got my first whiteside LFCL Tumblers when I was 11 or 12. I bred them until my mid thirties when an out of state move forced downsizing bird numbers. By my mid twenties I had a master breeder award from the Minnesota state pigeon club. I showed at major tumbler meets in Wisconsin and Nebraska. Today's whiteside LF tumblers probably all go back to John Johansson who got his whiteside factor start from me.

I developed a whiteside family from my Almond self Komorner Tumblers in the mid eighties. **John Tidwell** got all of them from me. I am currently working on a whiteside family in Portuguese Tumblers.

I state all these points to show my experience in breeding the whiteside pattern in different breeds. Before going farther I do need to say that in Europe whiteside as we call it here is called white shield. I will stick with whiteside since most on this genetics list are in North America.

Some believe that a bronze is needed to breed whitesides. I don't know if that's true or not. If there was a bronze involved with the LF Tumblers I am not aware of it. The Komorners were English Short Faced Tumbler based. So kite was the bronze behind them. Doc Hollander told me numerous times that ESF Tumbler kite bronze was exclusive and specific to the ESF. That it was different from other bronzes. The Portuguese Tumblers are said to be brander bronze so that's different than the ESF Tumbler kite. But I have my concerns that the Portuguese are really brander. Colors I am raising are not fitting what is expected to be coming from brander/recessive red matings. While it certainly is a bronze the dark bronzes and light bronzes do not change as brander does in bronze show tipplers with recessive red in the heterozygous form.

The whiteside family gene works the same in all three of the above cases. So is any bronze needed? Something for someone younger to work on. But it certainly means that whiteside birds would have to be tested in every breed where whiteside is in order to know for sure just what was needed. A bronze, more than one bronze, or something else??

So just what is a whiteside? A recessive red or yellow bird, that feathers out in a solid color with absolutely no white. The white feathers start to appear before the normal juvenile molt starts. Usually these feathers are in the front half of the wingshield and up to the cover feathers of the back if it's going to have a lot of white.

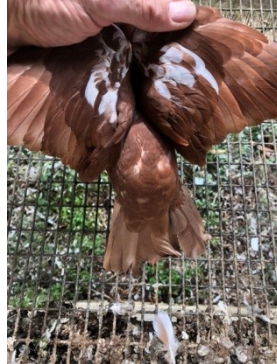
The whiteside family comes in three stages that we have to wait to see. First is rosewing which is a small amount of white feathers in the lower front portion of the wing shield. Then comes gay mottle which has up to about half of the wing shield covered with white feathers. Lastly we have the full whiteside. The full whiteside should only have white feathers in the wing shield including the secondary feathers. Any white feathers in the primary feathers, tail feathers, back or on the neck up to the head and around the eyes are a very serious fault. Breeding from these serious faults should be avoided if possible or done very carefully to unrelated birds to avoid more of these issues. Plucking colored feathers in a wing shield will eventually bring them back in white. That is how to finish off a great marked whiteside.

Breeding a heavy gay mottle or full whiteside to a self red/yellow will give you some birds that will get some white. Using these birds, even with one or two white feathers, together or with others with more white will create some young with increasing amounts of white.

When I developed whitesides in my Komorner Tumblers it started with a couple of reds that molted in a few white feathers. Several generations and I had full whitesides.

What we can be sure of is that there is some form of recessive red/yellow whitening gene that brings the white feathers out on solid colored babies. Then the markings are a matter of selecting the right combinations of complimentary matings.

Attached are some whiteside family photos. Three of an extremely overmarked whiteside with white back, white on head and white tail feathers. Then two of a gay mottle that could have a little more white and still be called a gay mottle. Lastly, two of a young bird just starting to get a few white feathers. Too young to know just how much white will come in.



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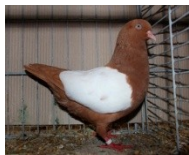
This Month we explore this topic that has been analyzed many times over the years without any definite answers as to just what is going on genetically. The trait name is "WHITESIDE"! The genes that are involved seem to suggest that there are several ways genetically that we can create a phenotype of a whiteside. First we must clearly state that a whiteside is a solid coloured bird that has just the shield expressing pure white. A bird that has the flights also white is referred to as a "WHITE WING".



Gold white Wing ( **Mick Basset** photo).

Now it seems that whitesides have , as we said, several approaches. First of all it was popular belief that white sides were caused by a 'grizzle' trait. Secondly it was believed that White side was possible in any colour base but that there were two main types that were not compatible with one another. They were (recessive red whitesides ) and (black whitesides).

The recessive red whitesides were thought to ONLY express with recessive red , and that an 'enabler' gene, yet to actually be identified or segregated from a whiteside genome , was the cause of the phenotype. These whitesides were fledged in the nest as solid recessive reds , and upon the first full moult began to express at least some white feathers on the shield area. This was/is considered to be the hetero whiteside trait. Two of these mated together would then produce more white that when plucked to some extent , would result in a near perfect white shield. This may actually be caused by the same gene as the "Agate" in Almond breeding programs.



Yellow whiteside (**Mick Basset** photo).

Another whiteside expression also with a recessive red base was thought to be caused by a form of Tiger grizzle. This bird is fledged in the nest as a recessive red but with some grizzled and/or pure white feathers that may also appear on the head , neck , back , and breast . These moult to more white in the shield , but rarely to a true whiteside phenotype not even with severe plucking.

Black whitesides were also thought to be created using a form of Tiger grizzle. The young appear slightly grizzled in the first stages in the nest and moult to a more clearly mottled shield . Again plucking is required to attain a near perfectly marked bird. Recessive reds and other base colours have been bred into this type of Whiteside. That started one Breeder questioning everything that had been previously written about "THE WHITESIDE" trait and began a three year study in an attempt to find new answers. We will cover that story in the November Issue , the Breeder is Tom de Munnik of Canada / Holland.



Black Vienna white shield ( **Mick Basset** photo).

Our Next Breeder is **William (Bill) Greenslade**, a retired school teacher from Canada . Below is his report on the work he has been doing based on many years in the Pigeon Hobby and with whitesides.

Hi Bob

This is the written part of my observations in test matings of recessive red Whiteside Dutch Highfliers. I have a series of photos that go along with this. I'm mailing them to you on a memory stick. There are far too many for me to attempt to download and send via internet, besides which I'm not proficient enough on my laptop to attempt it. Once you're finished with the memory stick, you may keep it for your own use. It is a high quality stick that I purchased specifically so that you can reuse it to save files for the newsletter. You are putting tremendous effort into producing it and are performing a great service to the fancy. You deserve a great amount of credit for all your work. Bill

#### RECESSIVE RED TEST BREEDING REPORT

I had my wife take the photos of the F2 youngsters this week instead of waiting until the moult was complete. I have a small setup and am crammed for space so I need to get rid of birds. As you can see in the photos, many of the F2 youngsters are moulting heavily. For the F2 photos we took 4 photos of each youngster: a face on shot, a wing fanned shot, a tail spread shot and an underwing shot. There are two notes first. In pair 2 of the original blue bar crosses, the second youngster, an ash red T-check, the bird caught its foot somehow and twisted its leg until the hip was out of joint. The photo was taken then the bird was euthanized. In pair 4 first round the first youngster is labeled as an ash red T-check when it should be an ash red bar. I was rushing and didn't catch the mistake until it was too late to change it. What looks like checking is either homo sooty or homo dirty or both. You might disagree with this but the bar shows too clearly for the bird to be T-check. One final comment, if you want to put your own interpretations to the photos, please do. You are much more familiar with the phenotypic combination expressions than I am. The photos are all on a memory stick that I'm mailing to you. It is a high quality memory stick, which I'm sure you can use once you've downloaded any of the photos you wish to include in any report you put together. You don't need to return the memory stick to me, I won't need it.

The original test matings indicate that the w/s hens were ash red so the test matings were sex linked for base colour: ash red males het for blue and blue hens. All the youngsters were het T-check/bar pattern. All were het recessive red, which showed in the red head lacing which disappeared after the moult and in the dark tails and flights in the ash reds. The youngsters had dark legs which lightened with age, indicating they were het dirty. Since they were T-check I am uncertain if sooty was present and there was no sign of smoky in the F1s, although you might see something I missed. The bronzing could be from kite or perhaps from brander or both.

The F1 pairs were selected to put together a pair 1 youngster with a pair 2 youngster. I had an extra hen so I chose to mate it to a recessive red w/s cock and I intentionally selected the blackest hen to put in this mating (pair 6). This hen is effectively a non spread black- non spread because it has a small amount of bronzing in the innermost secondaries, which wouldn't occur with spread.

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From the 18 F2 youngsters, the only ones showing white in the shield were 5 of the recessive red/yellows. The poorly coloured recessive yellow shows no indication of white in the shield. I suspect this youngster is base blue while the others are ash red base. The ones showing white are all probably T-check while the self yellow might be recessive red over bar, thus producing the washed out colour. I have found no indication of spread or of any of the various grizzles being present, nor have I found indications of smoky in the F2 offspring. Dirty and perhaps sooty are probably present in the recessive red whiteside presentation but I am not familiar enough with their phenotypic expression with the other factors to say that they are definitely present.

I would say that the whiteside expression in recessive reds must be the result of one or more pied genes, which must occur along with T-check and ash red in order to express. Kite is also likely required for the whiteside phenotypic expression, and it might prove to be the so called unidentified enabling factor.

Because of my small setup I was unable to produce enough youngsters from sufficient matings to get much in the line of results. Bob, you might be able to glean more from the photos than I have, I hope that you can. I'm sending you this by e-mail and am sending the photos on the memory stick by snail mail. This will be meaningless without seeing the photos as well. I was interested to see the various factors segregate in the F2 offspring and have enjoyed the test study. It's unfortunate I was unable to use enough test pairs and produce enough offspring to do any kind of statistical comparison. It would be better if you could see the actual birds as you would likely see much more than the photos show. If you include any of this for a report in a future newsletter you can use any of the photos you choose and put in your own observations without feeling obliged to include anything I've written here. You have much more experience with genetic traits and test breeding than I do. If you don't like the way I've expressed things, please make changes to tighten things up and make them more appropriate. None of the changes you make will bother me in any way. I am familiar with genetic nomenclature but am by no means proficient in expressing myself fully in genetic terminology.

Bill

**Test Pair 1** is a blue bar homer cock X recessive yellow Dutch Highflier hen. The first youngster is a T-check blue with bronzing showing in the shield and flights and red lacing in the head (not really visible in the photo). The second photo is an ash red T-check with bronzing showing in the flights and lacing in the shield. Photo 3 is a blue T-check with heavy red lacing in the head and bronzing in the secondaries and tertiaries. Photo 4 is an ash red T-check with bronze lacing in the shield and bronzing showing in the secondaries and primaries.



**Pair 2** is a blue bar homer cock X a recessive red shield mottled Dutch Highflier hen. Youngster 1 is a blue T-check with bronze lacing in the head and shield as well as secondaries and tertiaries. Youngster 2 was euthanized. It is an ash red T-check with bronzing showing in the flights and lacing in the shield. Photo 3 is a blue T-check with bronzing in the head and shield as well as on the chest. Photo 4 is an ash red with bronze lacing on the head and shield. Although it doesn't show in all the photos, all the youngsters showed varying degrees of albascent strip in the outside tail feathers.

TEST PAIR #2  
 OFFspring Pre Molt  
 blue bar homer cock  
 red shield with Dutch Highflier Hen

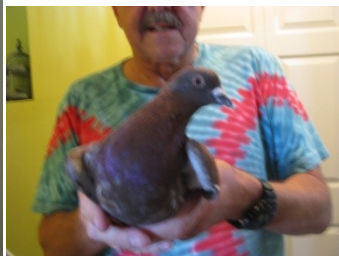


X



**Pair 3** is an ash red T-check cock X a blue T-check hen. Round 1 produced a blue bar cock and a non spread black cock. This bird has excellent green sheen, even on the tail. It shows slight evidence of bronzing in the innermost secondaries and slight evidence of the albascent strip in the tail. If you look closely you can make out the terminal bar in the tail. The underwing shows the slight bronze in the secondaries. The second round has a silver T-check hen with bronze lacing in the shield and bronzing in the chest and an ash red T-check with a lot of bronzing showing in the flights and a darker tail, probably the result of being het recessive red. Round 3 has a similar ash red T-check and a recessive red. The red terminal tail bar is evident as is the albascent strip on the tail. This bird is just beginning to show white in the shield as it starts to moult, the only youngster of the 6 to show it.

PAIR 3  
 Cock  
 CFAA-58 (2019)  
 Ash Red T-check  
 (pair 1)  
 Hen  
 CFAA-59  
 Blue T-check  
 (pair 2)



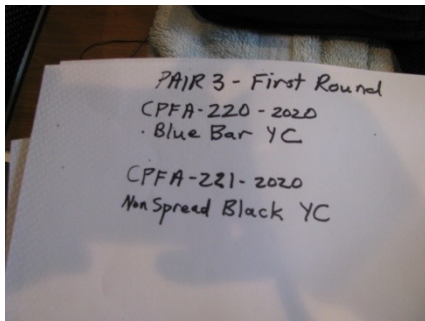




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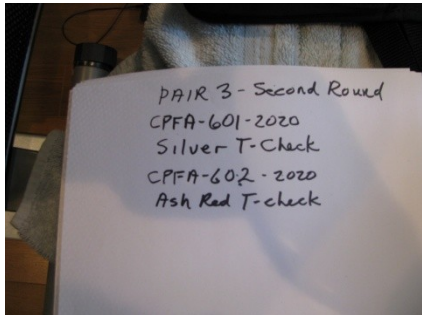
The F1 pairs were selected to put together a pair 1 youngster with a pair 2 youngster. I had an extra hen so I chose to mate it to a recessive red w/s cock and I intentionally selected the blackest hen to put in this mating (pair 6). This hen is effectively a non spread black- non spread because it has a small amount of bronzing in the innermost secondaries, which wouldn't occur with spread.

### PAIR 3 First Round :

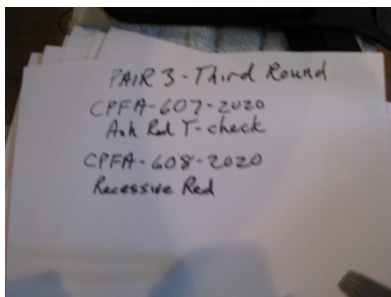




**PAIR 3 Second Round :**

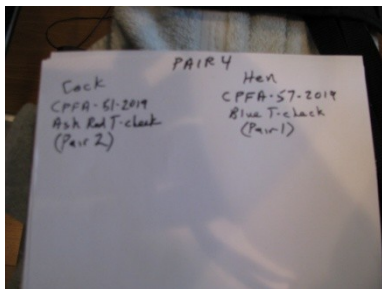


**PAIR 3 Third Round :**





**PAIR 4 .**



**Pairs 4, 5, and 6** were later starting so they produced only 2 rounds each. Pair 4 is an ash red T-check cock X a blue T-check hen. The first round has an ash red T-check or Homo dirty bar with heavy bronzing in the flights and a blue T-check nest mate with bronze lacing on the head and the shield. The second round produced a recessive red which is just beginning to show some white in the shield and on a secondary flight and the albascent strip shows clearly in the tail. The overall red colouring is poor, as it

was in the recessive red from the pair 3 mating. The nest mate is an ash red bar with red lacing on the head and bronzing in the primaries, probably from being het recessive red.

**PAIR 4 First Round :**



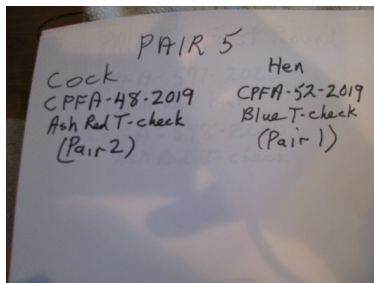
**PAIR 4 Second Round :**





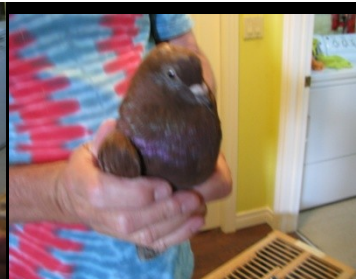
**Pair 5** is an ash red T-check male X a blue T-check hen. The first round was an ash red bar with heavy bronzing in the flights and an ash red T-check, again with heavy bronzing in the flights and also in the tail. The second round has an ash red T-check, very similar to the one in the previous round, but without as much bronzing in the flights and tail and a non spread black with evident bronzing which I expect will disappear after the moult. I suspect this bird is homo kite as well as being T-check and perhaps homo dirty

### Pair 5



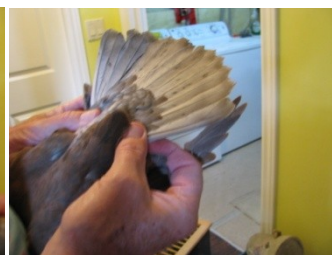
### Pair 5 First Round :

PAIR 5 - First Round  
CPFA-597-2020  
Ash-Red bar  
CPFA-598-2020  
Ash Red T-check



**PAIR 5 Second Round :**

PAIR 5-Second Round  
CPFA-611-2020  
Ash Red T-check  
CPFA-612-2020  
Non Spread Black





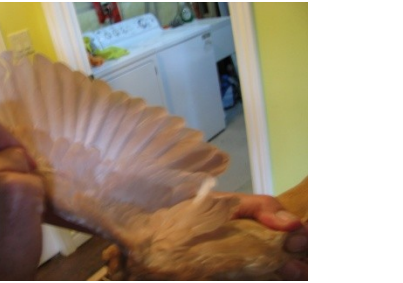
**Pair 6** is a recessive red w/s cock X a non spread black hen with bronzing evident in the flights, which indicates to me that the bird is kite, although you may choose to disagree about that. The first round produced a weak coloured recessive yellow self and a much better coloured recessive yellow which is moulting in to being a white side. The second round produced another recessive yellow moulting in as a w/s and a recessive red with poorer red colour but white showing in the shield as it moults.

**PAIR 6 :**



**PAIR 6 First Round :**

PAIR 6 - First Round  
CPFA-599-2020  
Recessive Yellow Salt  
CPFA-600-2020  
Recessive Yellow W/S



**PAIR 6 Second Round:**

PAIR 6 - Second Round  
CPFA-614-2020  
Recessive Yellow W/S  
CPFA-615-2020  
Recessive Red







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We feel quite confident that there are other Breeders who have information about the Whiteside trait that could be shared with the membership! There is something about the recessive red gene mutation at the Sox10 locus that when it masks over certain modifiers particularly of the darkening kind, causes a stoppage of pigment development in the entire feather so that they grow in white as the stronger webbed feathers develop. We see this in a number of Breeds and specific gene components such as the Bronze family, particularly Brander., the grizzle family, particularly Tiger., the stipple family, particularly the Almond bred Agate., and so on. The Baldhead design (Pi//Bh) and recessive red have proven not to be compatible in that the shields of recessive reds also mottle out. While we can see how the order of dominance plays out in the above documents, we still do not have a definitive answer as to what takes place, why it happens, or what makes it more specific to the shield area in some and not in others. Is that latter trait just due to selection as well as grooming? Perhaps you can shine even more light on this intriguing topic!

That is it from the Loft this Month of October, special thanks to **Joe Power** and **Bill Greenslade** for their contribution and insights into the genome of Whiteside recessive reds. Hopefully I got all of the data in proper order as I had a heck of a time with the transfer to my system. Next Month we will bring you the work **Tom de Munnik** has been doing on Black whitesides in particular. Until then, all the Best, and hope everyone is keeping well and having fun with whatever projects you have on the go! Please drop us a line and let us know what you are doing.

Bob in Canada, and Jith in India.