July 2019 Newsletter.

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

(Founded by Dr. Willard .F. Hollander)

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News, Views, and Comments from around the World brought to your PC via email Monthly!

June 23rd. was the birth date of our former Editor & Chief, Dr. Lester .P. Gibson. He celebrated his 90th. year this past June, and I had a nice chat with him by phone. He says while he has some difficulty getting around, his wife and Family are very helpful. He enjoyed a Party held in his honor on his Birthday. We had a chance to discuss the Newsletter which he says is better than what he did, but I assured him that I wish I had his accumulated knowledge so that I could answer the many questions I now receive. He particularly complimented Jith for his part in the Editing with information that reaches far beyond what anyone else knows in the molecular stages of Pigeon Genetics. Paul and I share an interest in both Tropical and cold water ornamental fish, and he still has a collection of outdoor Tubs and a tank. Paul and I also share a love of gardening and the out doors. It was great to speak with him and we all wish him many more Happy Years!

## **TOPIC #1:** Discussion from "Genetics Pros & Cons" on Facebook.

"Do you think it will ever be possible to reach PERFECTION in any breed and stop Improving?"

# Frank Hammond Yes

Bob Rodgers Standards are set, and in most Countries it is considered that all show entries begin with a "near perfect" score of 97 points, then cut from there. However STANDARDS are quite regularly REVISED., up-dated to reflect 'improvements' made by breeders and accepted by a majority vote of a committee within each Breed Association. This prompts the question, "at what stage do we stop "improving" upon any given Standard?" One would think that at some point, no further advancement can be made!

Walter Wojcieski If not -- real close ---- or some just go overboard....

Bob Rodgers I have spoken with those who say: "this or that Breed has gone BEYOND the Standard, so it is high time for an up-date!" If judges are ignoring "THE STANDARD", and placing birds that are 'beyond' it, should those birds actually be at FAULT?., and again at what point do we stop up-grading a given TYPE?

## Michael Spadoni Bob Rodgers

Yes they should be faulted.i have seen "up" faced longfaced tumblers and they comment how great the beak setting is .

<u>Frank Hammond</u> <u>Bob Rodgers</u> yes indeed. I personally think that we have messed with breeds enough and it's high time to give them a rest.

George De La Nuez This is a great question. There is a misconception that a bird has to be perfect to receive a high score of 97. There is a reason why the rating system only goes to 97 and not 100.

When we look at a champion rated 97, we note that the birds first and foremost meets all characteristics within a given RANGE of acceptance, that it's in balance and showing the correct expression and type of the breed. Then followed by the order of importance and this varies from breed to breed.

For example, ornaments, color, markings, voice, performance Ect.

The main important thing is that a 97 bird can't have is a fault or a wish.

This means that a bird meets all the criteria's and all parts fit harmoniously.

Bob Rodgers If one cuts up a Pie, then places it all back together, you still have a pie, and all of the ingredients are the same as before. The parts you mention that are harmoniously fitting together, is the "marriage" of all traits that constitute 'TYPE'. That is what is represented by the 97 points from which all birds start. No bird is ever expected to be perfection, thus 100 points cannot ever be a starting point. That is where we have to consider how is it possible for any

Breed to evolve BEYOND a written Standard and thus dictate a need to up-grade the written description and scale of points?

<u>Walter Wojcieski</u> <u>Bob Rodgers</u> the evolvement beyond a written standard in a breed-- will happen when breeders breed for their personal likes ... It's sad but it happens ......breed standards are compromised to the point that you tend to eventually have a very different looking typed bird....

Lots of things are lost like refinement and color in some extreme cases....

Jan Lombard The difference lies in how points are cut. The general understanding in most English speaking countries is that the maximum points that can be deducted never exceeds the points allocated to the particular aspect in the standards. In the European system a judge may deduct more points than this maximum. An aspect that makes up 5 points of the maximum 100 can be penalized with say 8 or 10 points. I. e. if a Mookee does not have 2 white flights on each side, it loose enough points to score below 90 (gets OB = disqualified), it does not get penalized with only the few points allocated to white flights.

**Quido Valent** We don't score on a 100% scale, we score between 90 and 97 (if not DIS or such). Breeding wise we will never get there, as it will never be so that all desired trates are represented in an homozygous state. The perfect animal will thus never breed true.

<u>Mike Bordelon</u> no one ever reaches the standard of perfection and then they go and change and you have to start again, so I just breed what I like.

**Bob Rodgers** Some interesting views thus far, Facebook has allowed us to keep 391 members, so it is certain that there are many more watching that have opinions, we would LOVE to hear them, please do not be shy, jump in!

<u>Graeme Boyd</u> A single specimen wouldn't convince me that the standard had been achieved. I would need to see a number of examples, in every colour, regularly attaining the highest award possible. Then I might think yeah, that standard needs reviewed.

Bob Rodgers Before this gets off track ... the intention was not that "a single" perfect specimen would constitute a standard change, but rather that each Breeder enters only a perfect specimen in each class. Then there would be a situation whereby all birds might tie for first place. However, as long as that is not possible, then a set standard should conceivably last forever! Even a single Breeder is not likely going to be able to monopolize the placings forever. Knowledge and bloodline specimens are often shared, such that new Breeders/winners surface. The point I see arising from all of this is that which has been made by Frank, Michael .S, Walter, and Mike B., and that is that Fads are the only reason why standards are being changed / updated about every eight to ten years, often in effect creating completely NEW Breeds. The STANDARD should be working to prevent that . What say you?

<u>Graeme Boyd</u> I think it is likely to become a circular argument. The standard is about preserving the ideal, which is commendable, but some would argue that those ideals came about through creative breeding and innovation in the first place.

**Bob Rodgers** So we utilize the given standard until it gets in the way of some individual's creativity?

<u>Graeme Boyd</u> Well that seems to be the nature of it. Some individual's birds become sought after, we can call it a trend or a fad, but it must have been a trend or a fad that led to most, if not all, of the features of the different varieties. Someone, somewhere, must have been producing whiter bars, longer limbs, shorter beaks, or whatever, and that characteristic gradually became the norm. Also, so much depends upon interpretation, and it takes time for consensus to happen.

Bob Rodgers We discussed the Modena on this Group. Three or four Countries took the original Italian Modenas in effect, and began creating a specimen that they would call a Modena under their Country namesake. They did in fact create at least three distinct Breeds that bore little or no resemblance to their origin Breed. Then the North American version went on to change, and change again, only to become the hulk of errors it is today, and I am controlling myself and being kind with that! Several disqualifications are now fully acceptable, and indeed seem to be seen as most desirable. The fellow who just spent years nearly perfecting the old standard of 15 or even ten, or 5 years ago finds himself with a loft of garbage that will not place against these monstrosities!

Walter Wojcieski Yup -- Bob overboard--- here's Modena before standard changes

Bob Rodgers Walter, while this bird is not stationed properly, it is not what I was referring to. The ones that bother me are the grouse footed birds with neck creases, no visible eyes, and wings crossed over the back with the tail carried too high. I think one reason why they are leaning toward grouse tarsus birds is to balance the visual 'weight' with that of the larger bodies and necks. I recently saw some American birds that clearly look as if they have been crossed with the British Breed to 'round' them even more. This is of course the business of the Modena Breeders and only they can control it. I think, however; when it becomes a matter of cruelty to the birds, we all as part of the Hobby should have a say to protect the overall image of the Hobby.

Editors' Comments: From what I could gather, some felt that our topic had something to do with cross-breeding etc. Some thought there should be no cross breeding in performance breeds, but in Show Breeds it was fine. Reasons for crossing, were to do with adding colours. Those against felt that an indiscriminant mix of breeds and types would be the result. I have noticed that in some countries, people who are basically quite poor, keep large numbers of birds ( Pigeon Farms). The birds tend to be of very poor show quality, however due to the fact that good birds are not available, they take GREAT PRIDE in what they have. Quite large sums of money are paid for these birds, especially given the poverty of many people. Imports by those Countries in the past have been very poor stock

which has not been fair to these people. Recent imports are showing GREAT improvements. This coupled with the formation of Pigeon Clubs, National Pigeon Associations, and the hiring of overseas Judges from Britain and America, promises to bring about positive change in areas where there is a tremendous interest and willingness to learn! Another concern however, may be the loss of many of the 'native' breeds that are indigenous to those areas caused by both cross breeding with imports, and interest in breeding the new imports for show in preference over local Breeds.

# **Topic #2:** What do we mean by Dominant and recessive genes?

The dominance of a trait is usually decided as to how it stacks up against "wild type". When a bird of a certain obvious mutation is mated to a bird that does not express any mutant genes and we get offspring that look like the original obvious mutation that we are testing with a ratio that is consistent with dominance, then we say that they are a Dominant mutation at that specific locus on a chromosome. However sometimes there may be other similar mutations at that same locus, and we want to establish which of the two or more mutations is dominant over the other. This becomes a bit more complex as often the traits are very similar under certain circumstances and it is difficult to separate them by phenotype ( what they look like ). So the original Mutant may be Dominant over wild type, but possibly recessive to its mutant allele (s), a trait that it possibly mutated from at an earlier time.

There has been a great deal of talk about the Grizzle genes, which was the first and which is Dominant. We have clear knowledge that Tiger grizzle is a Dominant mutant over wild type at the Tiger Locus. The mature hetero Tiger expresses on the entire bird except for the flights and tail feathers, as whole white feathers as we discussed in the last issue. In the homo state, the Dominance shows to the point of an almost all white bird. The Classical Grizzle is a partial Dominant to wild type in that it has a very small expression effect on wild type in the hetero, while creating the stork expression in the homozygous state.

We have seen where a few consider these genes to be "co-dominants" There seems to be many ideas as to just what co-dominant means. Is it a mixture or is it a blend of two equally dominant traits? Do we see an even mixing of the two traits or do we see a completely new colour blend that is different from either of the original traits?

Next we must ask, what happens if we compare the mutant alleles against one another. In the case of the grizzle traits, we must realize that the gene trait is the "whitening" aspect, and all the grizzle traits do the same thing but in various ways, so how can we say any specific two are codominants when we are seeing just whitened feathers in various degrees. Keep in mind we are no longer considering their effects compared to wild type colour, but instead against one another.

The fact is that they are alleles/ alternate choices with a hierarchy based upon one being dominant over another.

## **Topic #3:** Your responses to topics in the last Issue. {Edited}

#### Joe Power writes:

Here is a pair of Horseman grizzle bars. These are bred down from my imports. As you can see, there are two different expressions. These are typical for what I've bred since getting them. I've also raised BB's from them that were the same as the powdered seen in unflown (show type) racing homers, and birds looking close to what Ice is. So there is some connection with the Silesian Pouter coloration talked about two issues ago and the expression seen in my Horseman. At some point Scottish and/or English breeders used Silesians in Horseman.





Help me here please, I am wondering where the idea of kite bronze is involved with the grizzle show roller in the last Issue. I've not seen anything on this before, so would like to know where (who did?) this testing and the info from this testing.

It's confusing to me in several ways. First off, Kite is considered to be an almond specific expression and is considered to be T-pattern exclusively.

{Editors note: We have never heard or seen it written before that Kite is considered to be an almond specific expression nor that it is considered to be T-pattern exclusively. In fact Kite is an individual MUTATION that can be in combination with ANY Pattern, base colour, or other modifiers. While it is true that ESF Tumbler and Oriental Roller Breeders prefer to use a very black Kite that is referred to as a T-Pattern or Saturated T-pattern that also has Kite and usually hetero recessive red, that is simply because those traits best "resist" the white break of the Stipper gene and allow the deepest combinations of bronze and base pigments to express on what they call "Classical Almonds"!}

Second, I know from years of breeding that Tortoiseshell can be bred in T-pattern, checks bar as well as barless. If Kite was in fact a part of Tortoiseshell, then there should be non-grizzle kites produced from some matings, has this happened?

{ Editors note : Breeders often expect a particular trait to always and consistently give the same expression when in fact we know that they rarely ever do. Kite (K) varies greatly so that

some may have just a slight hint of bronze expression down in the inner vanes of the flights and nowhere else. We suggest that a more extensive check might show that non-grizzles from Torts will show this kite bronze expression. Kite bronze is a Dominant gene thus (K).

If I put checker into the grizzle bar Horseman I sent you photos of, I get tortoiseshell at times. Yet I have never raised either a bar or check from the "torts" that expressed any sort of bronze when grizzle was absent. There have been barred grizzles with bronze bars over and above the typical tort expression, but never have any non-grizzle showing bronze.

{ Editors note: Perhaps there is an additional bronze trait involved in some of the birds in your program such as Tippler bronze? Kite does not express in adult smooth spread areas, so no surprise that you do not see it especially in the barred birds. You question published data, it would be very helpful if we saw the data including photos from several hundred offspring that you would need in order to show what you are referring to here.}

Where the bronze comes from in tortoiseshell probably varies in Breeds. With all the bronze we have we certainly do need some extensive testing to figure much more on them all.

A series of photos on Brander and Kite. The photos in the last Issue from Walter Wojceiski appear (to me) to be Brander and NOT kite. The photos below show the differences. My Brander photos are of a bird that is Almond bred. Dan Zook has been using Brander in his Portuguese Tumblers thinking they were actually Kites, He is not into color genetics so did not understand.

Brander bar Almond bred by Dan Zook.



Next a Brander bred by Mick Basset, then a Baby Brander.





Baby brander,

and same bird in the following three photos.



Kite and kite lacking somewhat in Dirty to get tail darker.

These two photos and the one below of a kite (import from Germany) Portuguese Tumbler. Hoping this helps clear things up for Walter  $\,^\sim$ 



Joe continues below in the response to my email ~

Kite - have you ever bred English Short Face Tumblers? They are unique in their color make up. Other almonds are not the same unless ESF have been crossed in. One has to breed them for some time to fully understand the complexity involved.

After I met Wil Hubel and we had some phone conversations on almonds he had his wife type the full Fulton Treatise on Almonds for me. On the old typewriters. Still have the original envelope it came in back in 1972 (I think it was - might be 73) with the original typing. A treasure for me in many ways. Anyway, he always went back to that information as being the only way to breed proper and correct colored almonds and sub varieties.

I have a pair of yellow ESF here that Bob is letting me use to breed some ESF. And a half a dozen eggs from Bob Bollinger from three of his pairs of ESF. He's out of the country and didn't want to lose any babies that hatched.

I have six young almond and sub varieties that are half ESF-Portuguese crosses. Always put ESF into my almonds. Not sure how the import almond Portuguese are going to be genetically so will work separate family until I know for sure.

It was back in the early eighties when I started getting the whiteside family out of my almonds. Very different from true agates. Something Wil agreed on once he understood what I was explaining. I've been very watchful of the changes ever since. Why nothing about this was ever written I don't know. But it may come down to nothing more than folks not understanding that agates shouldn't change and that the changes the whiteside family goes through are different. {next Chimeras} Editor's comments in red again.

Back in 1973 I showed Doc Hollander a box with numerous mosaics. He was shocked seeing more than one. We now know these were chimeras and not mosaics. I raised way over a hundred of them from my almond Komorner Tumblers. One hen had eleven out of thirteen young be chimeras. Then mated to a chimera son had three more. Interesting stuff in some ways. {all chimeras are Mosaics, but not all Mosaics are Chimeras}

I bred magnani Modenas for many years. As well as almond rollers for a few years. Neither are like the ESF. When I crossed the rollers with ESF then the usual and normal sub varieties started to come. The rollers were from my friend Link Marten who traced them back to his father. Many generations of almond to kite with no other colors coming from them.

I think the differences may be playing a part in our being on different pages with kite.

As for Tortoiseshell there is certainly some bronze involved but it can't be kite as torts can be patterns other than T pattern while kite is considered to be only T pattern. {Definitely No!}

The reason I asked about where you based this Tort/kite info on is after over forty years of color breeding and studying I had never heard that before that I can remember.

# Next topic, Agates:

Whole feathered agates do exist. Fulton talks about them in his writings. My mentor in Almonds, Wil Hubel, had them frequently in his ESF Tumblers. I raised them from time to time in my Almond Komorner Tumblers. A proper colored whole feathered agate is going to look like a good colored red or yellow when the bird is standing still. When you open the wing up, you will find that the feathers are pearled somewhat like undergrizzle expresses. Might it be undergrizzle? Can't answer that as I never tested it to see. Keep in mind that this whole feathered agate might be tied to ESF Tumbler almond. My Komorner Tumblers and rollers were both made from or had, ESFT crossed in. I've done the same ESFT cross with my Portuguese Tumblers, though I do plan to keep the German import family straight while I figure out just what all is in them. If you aren't seeing whole feathered agates in various almond families it may be that this part of the almond genome has been lost from that family/Breed?

This little yellow is out of a yellow self and a Kite. Both Almond bred. This little hen was completely yellow when she feathered out. In the weaning pen she started getting the white feathers coming in. The second two photos are two weeks after the first photo. Big change in two weeks so it's probable that this hen is going to get close to being a full whiteside (AKA white shield), when she is finished. Will follow up with more photos in the future so we can see how white she turns as she ages. By the way, I've never had a smoky in my ESFT almond breeding over the years. Not saying it isn't / wasn't there, just that I never had it expressed.







Taken June 8th.

Gotta go Bob. While we may not be on the same page on kite maybe we can piece together things to figure out more than is currently known on kite?

Final word: By your Editors, It is no secret by now that I place little faith in the writings of Authors going back to the days of Fulton. I have also had people making reference to various "experts" of recent times, stating that I should perhaps check with them etc. We get to know about these Experts over the years and soon learn that they simply do not know nearly as much

as they themselves profess to know. The idea of this Newsletter is to sort all of that out and demonstrate to YOU the participants, exactly what makes sense using today's information based as closely as we can on the genetic facts as they are discovered. Many of the traits that you and I know as common knowledge today, have only been perhaps partially understood for the past one hundred years or even much less, so we know that the writers of old had no idea what the genetic bases for many of the traits actually were, let alone to properly name and identify them. Obviously terminology has changed and/or is ever changing to also catch up with what we are learning from a new GENETIC point of view. The idea is to bring both the Phenotype and the genotype descriptions ever closer together while making certain that we avoid the confusion of overlapping terms to mean many different things.

A very good example is the idea that Joe Power brought up regarding Kite being considered only T-pattern. He also made a comment above that a photo demonstrated a " **kite lacking somewhat in Dirty to get tail darker**".

We often see the term "saturated" T-pattern" as opposed to just T-Pattern. The reason for that, to begin with, is that a T-Pattern bird still has enough clumped smooth spread on the shield feathers to show a slight pattern of check that looks a bit like the letter "T". Saturated T-Patterns have this covered in with coarse spread so that the 'T' does not show.. The birds may be heterozygous or homozygous for T-Pattern without much difference expressed between the two. It is stated by some that "Darkening modifiers" add to the coverage. However we know that there is a very different form of Saturated T-Pattern used in the English Short Face Tumblers and the Oriental Rollers. Some still say that darkening modifiers are the difference there also, but fall short of ever actually naming what those are. Clearly Homozygous Dirty, Sooty (So) sooty (so), and smoky do not change a normal Saturated T-Pattern to a "Black" T-Pattern of the aforementioned Breeds. Both the "blue bellied", and the "black bellied" forms have Kite bronze when bred for it. Both forms can be hetero for recessive red and both are considered to be saturated T-Pattern. Spread is not considered to be a part of the genome of the black form. Ironically when mated with Indigo, they produce very nice Andalusian phenotypes.

We therefore have a type of T-Pattern Kite that serves a very good purpose in assuring that the white breaking action of Stipper does not make a white or very light bird overall in the heterozygous state, but instead allows the kind of resistance that ensures a strong Copper bronze and black base pigment to prevail in all feathers except those where <u>condensed</u> smooth spread is deposited. These areas associated with the tail band and flight tips are NOT affected by Kite Bronze (K), but are of course still whitened by the breaking action of the Stipper gene. That is why, yes even the breeders of old realized that it would have to be a standard requirement for some white break to prevail in the Tail and flight areas even though they did not know why, as we now do!

That is it from the Loft for July 2019 ... Have a great summer! See you again the first of Aug.