

The Pigeon Genetics Newsletter, News, Views & Comments.  
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( Founded by Dr. Willard .F. Hollander)

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This Month we take a look at what all of you have had to say,

**Robert Warry wrote :** Bob I was sent your genetics paper and thoroughly enjoyed it, would it be possible to send it to me in the future ?

**John Matranga wrote, edited :** Bob.,hope you can change my email address, Thanks, and thanks again for all the hard work you guys do to put this together every month !

**Coenraad Naude wrote :** Good day. Would you please add me to your newsletter? Your letters are extremely informative.

**Joe Power writes, edited :** Hi Bob Hope all is well there with you and the family. Crazy times with everything that is going on in the world.

Attached are photos of two young utility kings that feathered out with some colored feathers. One has a head spot and neck. Other has rump markings. These are not the first I've had in the past five years with this family. I have tested numerous key birds in the family to colored birds. Always get solid colored young. Mostly spreads, but a few patterns and none have white anywhere. The family these came from are all totally white.

I've had recessive white in other breeds and never had these scattered colored feathers. The couple of these that I kept through adult molt lost all the colored feathers or edging on the feathers.

These two are both leaving Tuesday as I am taking excess birds and rabbits to the Amish auction. I was curious if you have seen, or heard, of this before. I have not had any split eyes to suggest that these are anything other than recessive white. Your thoughts please. Stay well. Joe .

Editors' response : {Hi Joe , all is well here having a very hot dry summer so far. I actually had a family of pure white bull eyed birds that did produce a youngster with just a couple of black feathers on its neck. We discussed this quite some time ago , I think here on Facebook ., but I cannot recall what all was said .. If I find anything that may interest you I will send it along . Other than that I do not have an answer to what might be going on genetically. ~ Bob.}



Ed. { An afterthought concerning these photos is that perhaps the white is actually a grizzle trait bird and the colour expressed in the juvenile feathers does not hold . I have had that happen when placing recessive white into Indian Fantails which involved classical Grizzle. White young had some blue laced feathers that moulted out ; however, if you did not get any grizzles out of your testing, then that seems to negate that possibility}

**Dean Williams wrote :** Hey Bob, a friend from Kuwait Mohamed Al Fouderi, sent me this photo. We were wondering what combo of factors these birds have. What are your thoughts?  
Sent a couple of pic , my modena pencil project. I used recessive white, to black gazzi moravian strassers.

Appreciate the newsletter, you are doing all of us a great service. Sincerely Dean.

**My response :** { It appears to be Pencilled factor. The recessive white must actually be a Pencilled bird that cannot be seen due to the pigment being blocked by the recessive white gene , but nevertheless it is still there. Mated to a black , the heterozygous Pencilled phenotype would vary. It was once considered to be a recessive gene , but was later determined to be a partial dominant. The homozygous state would leave the head basically solid black and the rest of the coloured areas depigmented considerably more than this with only a hint of lacing , and perhaps a few darker blotchy areas. This is unusually well laced for heterozygous birds as usually only the flights and perhaps the bar areas are basally lightened. ~ Bob }



**Brian Heck wrote :**

hi Bob - the attachment to your email below is in fact the January 2020 issue.

That said, it did prompt me to respond to something you had written in the January issue, namely that ash red cocks heterozygous for either blue/black or brown (regardless of pattern, apparently?) are often referred to as "mealy". I had never heard that prior to your January issue. In my experience based on discussions with probably hundreds of fanciers in Canada, US, Australia and England, and much reading, "mealy" refers to the barred version of ash red, whether cocks (hetero for blue/black or not) or hens. I have never heard other patterns of ash red (aside from barred) called mealy. The corresponding dilute birds (barred, ash red, of either sex and whether pure or hetero for ash red) are referred to as "cream" though occasionally you will encounter someone who will spell this "creme".

The last couple of years, I have noted that breeders of show-type rollers and homers are now calling mealies "red bar".

Again, in my experience, a mealy with flecking showing it to be hetero for blue/black is often referred to as an "ink-spots mealy". Of course, ash red cocks of any pattern can be impure for blue/black and therefore have ink-spots.

Just wanted to reference my experience, not sure whether the nomenclature in Atlantic Canada is different, I don't recall the topic ever coming up in my visits with Allan Knodell.

All the best, thanks for your continued good work on PGNVC, and good health and fortune to you and yours! cheers Brian.

**My Response :** { Thanks for the heads up on the Issue sent out to you ., that means about 20+ others got it also .. I will resend. Now as for ash red bars .. Hollander U.S.A named the gene Ba for Ash-Red rather than saying Dominant Red or any of a number of other common names. The name mealy began a hundred years or so ago when they did not have a clue about the affects of some carried alleles etc. That is why Mealy stuck as pure ash reds followed the breeding of the original mutation, which would have been hetero in all males. Needless to say that pure ash-Red Barred males do not in any stretch of the imagination appear 'MEALY' looking . Indeed I find the term an insult to breeders of quality Ash-Red barred birds or any other pure ash series birds. The colours are smooth , clean and clear. Mealy exemplifies the presence of the so-called 'ink spots' as cumbersome as that term is. Like so many terms that began with people who were basically ignorant of any of the genetics of pigeons , they now need to be sorted out. Phenotypes need to be named more closely to their genotype counterparts. The many new mutations and combinations are beginning to make it more and more necessary for us to get a better handle on terminology. ~ Bob.}

{ As an afterthought , Hollander gave in his drawing, a list of the trait terms with the pattern series and associated spread factor terms. The ash series was given as ash-red, with the spread factor as 'Mealy". Again I think we have to realize that mealy was a reference to any phenotypes within the colour mutation that had a grainy appearance. This could be caused by either hetero blue/black, or brown /chocolate, or perhaps residual bronze as is often the case in spread ash. Other pigment modifiers such as Sooty gave rise to different terms such as Dapple , and Strawberry. I have been also accused of making up the term Chocolate , but if you check that same Hollander page he lists Chocolate as the spread factor of brown series. Actually Chocolate was given many years earlier by Christie and Wriedt Not me .}

**Martin Gangkofner** wrote : Thank you very much, Bob.

**Christine Desmarais** wrote : Thanks Bob!

**Mario Beauregard** wrote : Very interesting, thank you very much!

**Paul Gibson** wrote : Hi Bob, Another excellent thought provoking issue. Sure glad you decided to take on the task. I had some thoughts on some earlier issues, Will write in a few days. Hope this missive finds you well.

All the best. Paul G.

**From Ash Hammet** : Hey Bob, Hope all is well with you. Thanks as always for the newsletter. So I don't think extreme dilute is an "epistatic" modifier. I think the color expressed is simply so light, the pigments are so *diluted*, that this makes for a visually very similar coloration regardless of other factors, rather than epistasis. I'm eventually going to end up with Dominant Opal and/or Indigo Extreme Dilutes, but I suspect that they won't look much different than any other ecru of the same base color. Other factors that affect the appearance of Dominant Opal such as the presence of bronzes or dirty etc., will probably show up on an extreme dilute pigeon as the same beige coloration that everything else does, making the pigment blocking effect of Opal much reduced. Reduced! There's another interesting modifier to combine with extreme dilute. Would that make a very light phenotype, maybe very nearly pure white? Or a really soft greyish beige color? Those are both sex-linked so there'd be that to contend with as well. I don't have any reduced so I can't try that one. Black Toy Stencil Extreme Dilute! That would probably only take about ten years to make! Ha ha! And it would still be just a beige colored pigeon!!! So just for the record, Have a great summer. -Ash.

PS.

Here's a pic of my 12 week old spread ecru horseman hen. She is going to look pretty awesome when she starts blowing up proper. closeup of eye as well. Their pupils are black. She is pearl eyed; that is why the iris is light. It has nothing to do with the ecru mutation. I get pearl eyed one from all colors. She is extreme dilute blue bar spread.



**Extreme dilute blue t-pattern, close up of eye. The eye is totally normal in pigmentation. She's still a little young for the iris to be fully colored, but you can clearly see the pupil is**

**black and the iris will have normal pigmentation, I'll get another close up in a month or two when she has matured some more.**

If she gets to where she blows up nicely, like say, a good apple shaped, orange sized globe, she will be a really good looking bird...

I'll send you another pic in a month or so she'll be developing some more by then...

Further from Ash Hammet : PINK RINGNECK DOVES!!! by Kevin L. Stalder and W. J. Miller

After its importation 1981, the tangerine mutation (Ta) in the ringneck dove, *Streptopelia risoria*, has posed many challenges for those of us trying to analyze it. As is already known, the single mutant form is called tangrine, and the interaction of tangrine with blond (fawn) is called orange. We call this interaction of tangerine with white, pink.

Pink ringneck doves basically look white, but there are several very important diagnostic characteristics which define this color type. Pink ringnecks have a pinkish cast on the head and upper wing feathers. Particularly the scapular and secondary wing feathers are affected. This pigmentation can be seen most easily in good lighting, but many individuals display a rich coloration that is readily detectable. As in the other tangerine types, the primary flight feathers are much less affected by the pigment that is found over the other areas of the dove. Pink ringnecks may be pearly, and do have white neck rings. The iris of the eye is a reddish color and the pupil is black. It is important to note that for positive diagnosis, adult plumage must be observed. Pink juvenile can easily be confused with whites, particularly if they are also pied.

Pink doves are more similar to light cream ringnecks than to any other color type, although distinguishing between the two is quite simple. Cream doves have the characteristic "broken", mottled iris that goes with ivory, and cream doves also have pigmented flights and tail feathers. They also have pigmented neck rings. Pink doves do not.

The first classified pink ringneck dove (617B) was produced by W. J. Miller in September of 1986, and was the result of a cross using tangerine doves from the O. F. Munsell stock. Subsequent pink doves have been produced from this and other similar matings.

More recently, several more pink doves were discovered in a large group of doves donated to Miller, by Munsell, for research purposes. These doves were classified as being pink, and were added to the research flock inventory. Many of these pink doves were immediately put into mating to further the understanding of their genetic make-up. The pink birds found in this group were all females due to the sex-linked nature of white ( $d^w$ ) and the breeding programs at Munsell's.

Miller and Stalder's research efforts now have several matings using and/or producing pink ringneck doves of both sexes. A pure breeding stock needs only a few more tests and should soon be available. It is important to note that pink is simply an interaction of tangerine and white.

Pink doves can be found with added characteristics such as pied, silky, and pearled. These combinations have been produced, although not as a pure breeding stock.

Pink ringnecks have been sent around the country to many selected individuals including G. Schutt, G. Hernandez, K. Cline, F. Slee, and other ADA members. These new pink doves are expected to "catch-on" soon with dove fanciers and breeders.

I *just* remembered that in Ringneck Doves, Tangerine in combination with homozygous "white" makes what they call a "pink" ringneck dove; they are a very *very* light pinkish color, further evidence the mutation is in fact *extreme dilute*.

**Adam Archer wrote** : Hi Bob, Attached is my "Extreme dilute" hen. I am yet to confirm it personally, but she was given to me as an "extreme dilute blue check". I will keep you updated on breeding results. Also, below is some personal correspondence with Dick Cryberg re: "Extreme dilute", which I found interesting. It does seem that the "d" locus is quite prone to mutation (similar to the St locus I guess, I wonder if it is something to do with the Z chromosome?)

"Extreme dilute is an interesting gene. Today we know of three alleles in the US. The one from Barkel, one discovered by Ann Ellis in her Monks and one that was found in Rollers some 30 years ago. I know for sure all three of these are different mutants, but all three look exactly alike. I also know of one that happened in Europe. That one can be traced back to an ash red hen which hatched in the late 1980s. Her color was normal, but she produced two sons which were hetero for extreme dilute. So, while she carried the mutant on some of the cells in her ovaries she did not carry it in her body cells. So, I have little doubt it would be a different mutant from any of the US versions.

It is nice to hear that the Australian version is alive and well. It seems that this must be an unusually easy part of the DNA to change in view of the fact there are so many mutants. What I find surprising is the mutant was not reported long ago. One allele or another has to have happened many times. There are literally hundreds of possible mutations that result in extreme dilute."



Some of you may want to weigh in on Adam's observations for another Issue. Let's hear from you !

From Joe Power { Edited to topic only} - Hi Bob

I have a few Black Dutch Croppers. My original birds are imports from a top breeder in Holland. He breeds black and black mottle. I've emailed him with attached photos and questions. Because of limited birds I have a brother sister mating. Not a mating I do often though I certainly have had them in the past. Anyway, when I got home I didn't find the expected blue bar or blue check. Instead what I am thinking is spread recessive opal. This baby had a different down color as well as a lighter beak with a ring. So I felt it wasn't black.

Dutch Croppers do not have a lot of color modifiers. Indigo is just getting a foot hold in Holland and Germany. Other than the basic colors and patterns that is the extent of genetic variation in the breed as far as I know. Similar color expression to this baby could come from Faded or dominant opal. But since black sire and black grandsire are good colored blacks these are doubtful.

Reduced and rubella could also produce similar expressions. But they would have (should - could) have produced other than black before now and with any mate. A mutation could have happened but those odds are pretty low, so not very high on my list. That leaves recessive opal. Recessive genes can go on to infinity until they match up with a mate of similar genetic makeup. With the brother sister mating all seems to fall into place. Molting could change the expression some but I don't expect to see very big change.

I am excited to see this little one mature. Color will be quite striking I think with the size of the Dutch along with the big muffs. Your thoughts on this and the photos. Stay well! Joe



Ed. : {I think I must say this to a hundred people a Month at least , but it is true... we can only wait to see the finished product, and even then we may not see the answer. Spread seems almost certain, and of course the blue/Black pigment. It does seem to have something going on there in keeping with opal (o), so you would have to check to see if he has that gene in his stock. I am wondering if it may be a nestling form of whatever is causing his Mottles. That will show up with the first moult . It looks slate in tone , so also wonder about smoky. Look forward to the adult feather. }

From **Tony Brancato**

Thank you for the awesome, informative newsletter. I am currently working with Triangular Spotted pigeons crossed with domestic homing pigeons. The off spring are not sterile as one would believe as the Triangular Spotted pigeons are from North Africa and the domestic pigeons trace back also to North Africa. Thank you again. Sincerely, Tony Brancato.

From **Frank Hammond** : Many thanks as always Bob. Hope you are staying safe and keeping well. best wishes, Frank.

**Sylvie Eglin** wrote : Thank you Bob ! Very good job !

This from **Tom Ah Demunnik** of Ontario Canada ,Edited -

Hello Bob

I hope you are well and able to stay safe. My life here is becoming more difficult as my wife is in fragile health with surgery pending , Thank God I am healthy so I can look after her for now. I plan to cut way back on birds and related projects and spend the rest of my time with birds trying to stabilize the Dutch Black White Shield markings.

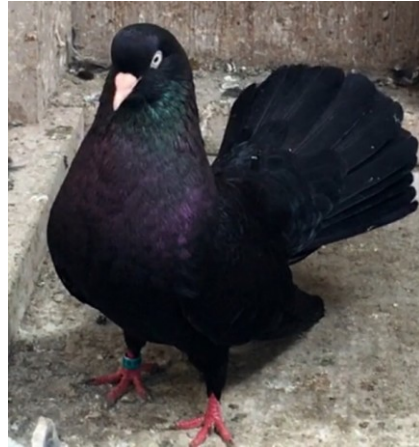
The below are three expressions of black self's . The only reason I did this study was to explore the genetics of self blacks with white beaks such as in the Oriental Rollers and Dutch HF black self's. It's what the show standard requires in both breeds of black self's..

The first one is a black self Dutch HF , Blue series, T-check pattern , Homo Spread and Homo Dirty , Non smoky and Non recessive red. ..

The second and third pictures are black self's with white beak and are considered to be Blue series , Bar pattern, Homo Spread , Homo smoky and Hetero recessive red . These would be Non check , Non Kite and Non Dirty. However some might be a weak Hetero Dirty and Kite as I often see black toes in these or dark tips on the beak . I have heard the beaks of juveniles are always a concern as some turn darker after the moult.

The fourth picture is an intense coloured Oriental Roller " Non Spread , Non smoky " black self that some call a Dirty Kite . It is Blue series, T check pattern , Homo Kite , Homo Dirty , Hetero recessive red , I have only seen these in Oriental rollers . I wonder if these genetics might be useful where a Non Spread black might stabilize the markings in the production of the Dutch black white shields . .Walter Wojcieski uses these selective blacks into his Almonds and said he would never use the white beakers for obvious reason.





I have enjoyed following your discussions with the Oriental group and of course also the Newsletter.

All the best , Tom

Editors' Note : {There was much more to this email , which will appear in the November Issue as a special on Whitesides.}

Email from **Bill Greenslade** of Ontario Canada to myself and Tom DeMunnik.

Hi Tom and Bob

I have a kite tipler male crossed with a rec red w/s hen. I hatched one egg from the pair along with a black tipler egg I placed under them. The young F1 is an ash red, het rec red, either het or homo kite and T-check (likely homo). I'm including shots of the cock, one of the hen and shots of the youngster. The ribbon tail feature and light tips on the flights are a combination that is a first for me. My question for Bob is, "What factors combine in the youngster to highlight the ash bar and wing tips?" The photos make the youngster look much lighter in appearance than he actually is in reality. He is definitely red and the gray in tail and flights is dark. Thanks for any input you might provide. Thanks in advance for your help. Bill



Ed: {The tail band and flight tips of course are typical of all ash series except spread. The grayish tone to them is hetero recessive red. Now ... The cock and the youngster look far too bronze to me to be Kite , even homo , I would not be surprised if they are Brander especially if the young is even darker than the photo suggests. ~ B.} {After looking at the wing of the male , I take back my comment regarding Brander, I think it is indeed just homo Kite. The recessive red is very richly coloured and possibly the source of the added reddening of the Ash youngster. I am not certain who first noted the darkening effect of (e) on Ash , but Paul Gibson has mentioned it in previous Newsletters.}

Email from **Samir Baig** of India - Hi Bob , Sooty factor , We in India IN Hyderabad (sooty factor )Local name (1) maqsi Meen lite dots litle visibal (2) makhina A little far far dots (3) Babra Full dots ( checker ).

Ed: {Photos !, & 2 photos are a separate Checker Pattern that have the modifier (Ts1) in Intense phase and one is dilute. They do not appear to have Sooty factor. The other three are Sooty with the second last a Mosaic for Sooty and non-Sooty, that is interesting. The last one is milky factor bar with Sooty.}



We close with some thoughts that I posted on my Genetics Pros & Cons Group Facebook.

(1) So, you are trying to breed 'Almonds' and you are told that you should breed Almond to almond , that it is OK , and that it is NOT a lethal or even semi-lethal combination. That is totally false information. Most pure almond males will be adversely affected by some condition ranging from dead in egg., death shortly after hatching, short lives., head weaving as if dizzy due to eye deformities., and severe eye infections . Do you really want to deal with all of that with no good to come of such matings? Birds that have as many darkening genes as possible, will have more colour than normal and therefore slightly less chance for problems , but will never fit into any standard classification.

{ Anyone who boasts of producing many homozygous Stipper/ Almond males without any problems , are almost certainly breeding from some other allele combination , such as Hickory X Almond etc. These crosses will produce similar phenotypes to Pure Almonds but will not have lethality ! }

(2) Spread factor should never be used in a Classical Almond breeding program., well why not , especially if you think there is no problem with mating two stippers together ? Spread can be kept

heterozygous, and only 50% of the total young will be spread, some will be Classical without spread. If spread does indeed mask bronze, then any sprinkles, (the spreads that are also stipper), should not have the bronzing trait. There is a possibility that the recessive red will express somewhat, and that would be the possible drawback with these phenotypes. The other drawback would be that it is difficult to keep track of spread in recessive reds. I think that spread blue/black KITES could be used and some nice birds produced. So not a total no no!

(3) Is it ok to call a 'spread stipper' (Black Almond) instead of Sprinkle. I do not see the logic in promoting this terminology. BRONZE is what makes a bird "ALMOND", If there is no Bronze, then there is no Almond. It is still a STIPPER (expression of the Stipple (St) gene), but it is not an Almond. Even old classical Almonds that have reverted to almost self Blue/Black saturated T-patterns should not be called BLACK ALMONDS in my opinion.

(4) I have seen a number of birds that appear to be Sprinkles (spread factor stippers) that are expressing the faint red cast such as I mentioned in #2., but the breeders thought they were Classical Almonds that they hoped would darken with age. Now depending upon to which base colour the stipple gene is linked, that bird may just become a darker base pigment either the Dominant gene or the carried recessive gene. The RED pigment will not get much darker than what it is in the nest. If you have a nice marbling of black and white with the white break tarnished with red, then chances are you are seeing either hetero (e) recessive red, or hetero (K) Kite. When breeding Racers, recessive reds are usually not good quality colour, and homo Kite is also needed. The Kites are usually very 'blue' also, so less chance to get the good colour contrasts of a typical 'Classical' phenotype.

**Walter Wozceiski** exchanged comments as he was opposed to the idea or necessity for using Spread Factor in the Almond Breeding Program at all. He wrote { edited } : It is possible but not all breeders are as understanding of this separation and how records are to be kept.... braking it down to the pure genetics as you are communicating - genetically it's possible - but it would be safer to steer away from spread because it has brought many family's of almond stippers Backwards toward spread stipper types or multi colors or AOC s

My Response : Well, with all due respect, I have not seen any indication that the traditionally dictated procedure has produced anything other than what you describe. Whenever we ask for examples of Champions no matter what Country, we either get no response, or excuses, or the same old colourations with Black & white tails, or dark necks and red shields and gray tails etc. I doubt very much if there is any clear cut trail leading back to prove what you say can and has happened. The photos of old seem to indicate that spread birds were very much a part of all breeding programs. It would be interesting to see some new approaches to using spread blue/Black Kites.

Now it is your (the members) turn to voice your opinions on this and other topics! CU next Issue ~ Editors.