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The Pigeon Genetics Newsletter, News, Views & Comments.

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(Founded by Dr. Willard .F. Hollander)

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"The latest updates from around the World brought to You Monthly"

TOPIC : NEWSLETTER HISTORY BY DR. WILLARD .F.HOLLANDER. (PGNL)

( ) = report by Robert Mangle info, { } = Editors' comments., the remainder by Hollander.

I thought you may enjoy a few facts from the past about this Newsletter . Dr. Hollander once wrote in the American Pigeon Journal that he began the FREE newsletter in 1956/ (1957 Mangle report) as a paper mail out to 50 subscribers. It consisted of 5 (4 to 6) pages four times a year and he did it for 10 years. Then Carl Graefe asked Joe Quinn to take it on and he did it up to Issue #74 (#72 Oct.) , 1974 . Then it went to Dave Rinehart (Issue 1 Jan. 1976) who changed the name temporarily to Pigeon Science & Genetics. He solicited contributions ,(three times a year $10.00) , from over 150 subscribers but quit after nine issues, Carl Graefe had passed away and they went one year without the Newsletter. Then, {in Nov. 1982 Issue 1 } (Jan. 1983), Dr. Lester .P.Gibson took over and maintained it for {32} years in total. He changed the name to Pigeon Genetics News, Views & Comments. He charged $10.00 ($15.00 plus foreign rates) , and for the most part mailed out a quarterly 26 page Newsletter to over 200 people. Then he switched to an email version { $10.00}. **{ He turned it over to Bob Rodgers in 2014 . I asked Jith Peter of India to be co-Editor in 2015 and we have managed to produce it Monthly as an email publication FREE of charge. The readership began to grow from there to become well over several thousand worldwide. Hollander wondered in his article what the next 50 years would bring ., and I think he would be well pleased with how far we have come , and with the new discoveries and genetic understanding that are so widely shared in his Newsletter today! }**

Thank You Dr. Hollander , and subscribers !

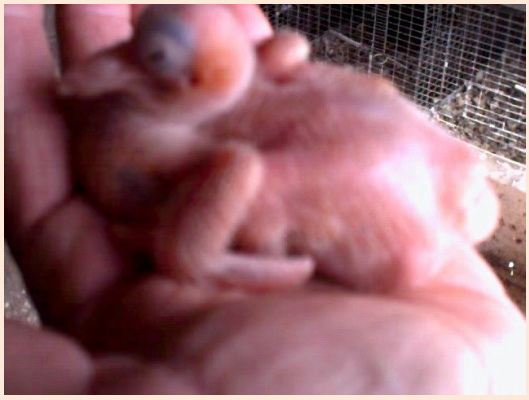
Starting off the spring with some new Topics :

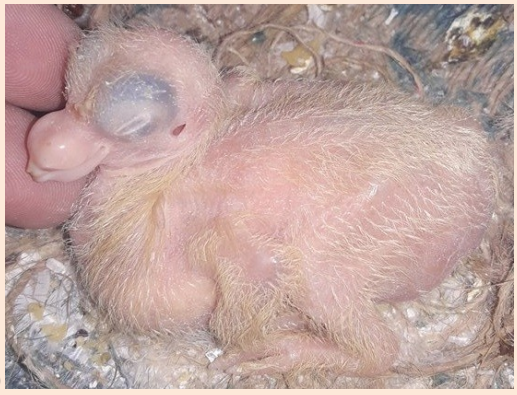
TOPIC : This deals with identifying certain colour and modifier traits in the nest the day of hatching. Beginners are always anxious to know just what they have. Much of what can be expected can be surmised by knowing not only what the babies look like , but also by knowing as much as possible about their parents and grand-parents. Yes there are hints with the day old chicks. Points to observe are : (1) The colour and amount of "fuzz" or down hair covering the chicks. (2) the colour or lack of it on the beak , (3) the colour of the Eye ball area as seen through the skin " noted by Shoibal Sabbir of Bangladesh). Within the first week you may also see changes in the colour of not only the beak , but also the toe nails and in fact the scales on the tarsus of the foot we call the (leg) , and the toes . Some or all scales may start to appear dark brown or black. So now let's check to see what these subtle signs mean.

Photo # (1) is a "naked" chick , virtually no hair which we call "down" feather. This tells us that the baby may be either a dilute phase , Ecru or an albino . Most likely it will be a dilute phase , which this one proved to be . Photo Bob Rodgers in Canada. (2) is an example of "short down" , which tells us that the chick may very likely be an Almond colouration of some sort. Both chicks show a very light ring of slight colour around the tip of their beaks. Both will be blue series birds most likely. Photo #2) is by Shoibal Sabbir in Bangladesh. (3) is an example of two long down babies that show dark blue beak rings and the beaks are already starting to become quite bluish. These will be Intense Phase blue bars, they are also hetero for Sooty factor which cannot be determined at this stage . Bred by Bob Rodgers in Canada.

We cannot tell what pattern they will be without knowing the parents , and even then we may have to wait until the feathers begin to erupt from the quills.

The circular skin covering of the eye ball colour does not tell us anything in these photos . However Shoibal noted that Intense birds look the darkest as expected , dilute birds appear very light grey, but brown series birds are an intermediate colour .

(1) 

(2) 

The down hair of babies may be a wide range of tones from almost white through to a tan, grey or yellowish colour depending upon the multitude of colour modifiers possible in pigeons. You can contribute to the science by keeping good written and pictorial records from hatching to adults and reporting here !

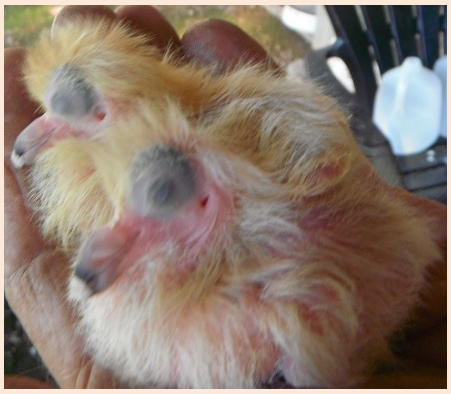
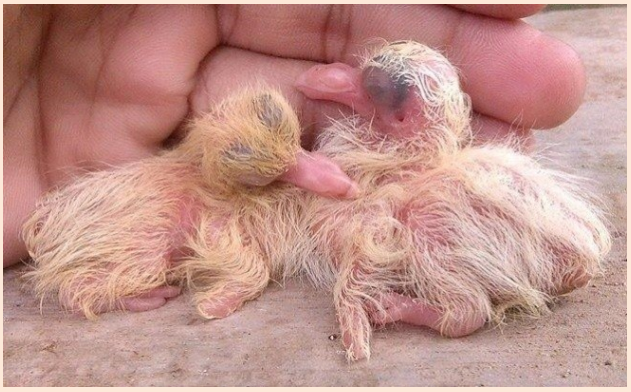
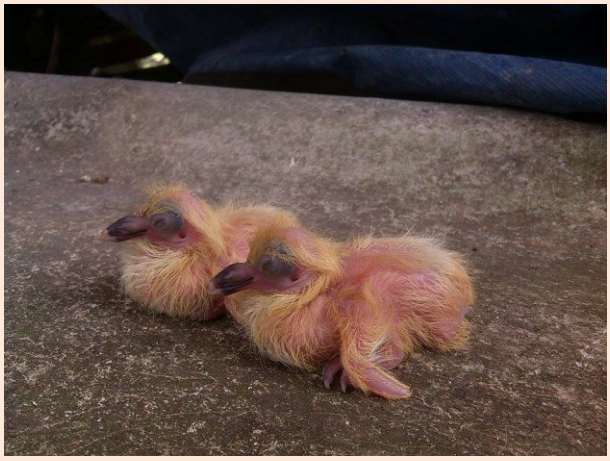
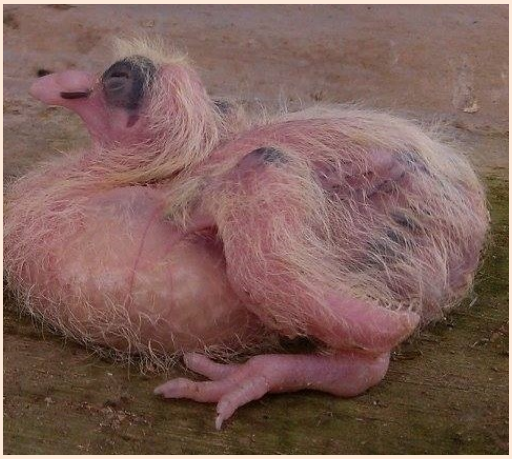
(3)  (4) 

Photo # (4) is a pair of recessive reds which have slightly different beak colours . This usually fades away as they age instead of getting darker as in most blue series birds . These birds moulted in with a type of migrational white , one much moreso than the other . Other colour traits may also express similar beak rings .

(5)  (6) 

Two Dirty factor young - and a non-Dirty factor (foot light) , pied showing stained beak and body & wing pink skin areas that will be white feathers later - Jith Peter.

Pigeons undergo many colour changes as they age . Often the emerging feathers will show certain colours at the tips that will disappear after the first moult. Some will become lighter , others will become darker, but rarely do they ever stay the same , except in the case of pure white feathers..

There are many new modifiers now that tend to de-pigment skin and feathers so that, near colourless feathers are the result. This makes it next to impossible sometimes to even guess what base colour is involved.

NOTE: To identify Dirty Factor in squeakers up to fledging age , the beaks, flesh and feet will be much darker than usual, black including foot scales on blue series, and tan to chocolate on all others . Pieds will have patches of coloured scales on otherwise pink tarsus and toes if Dirty is present.

TOPIC : COLLECTING YOUR NEWS .

Something that we must consider when trying to get people to participate in the Newsletter with their Breeding results , is that quite simply they do not want anyone else to know what they are doing. Now you may think that is not very scientific minded of them, and in that sense you would be correct. The situation is however , that some discoveries in the Loft lead to a possible EDGE in the show coop! Few are likely to tell anyone IF in fact they discover the secret to breeding a certain standard colour or ornamentation that will ensure a Championship at a National Show.

The scientific approach therefore , must take the direction of publishing a paper on any significant topic that someone may have worked on, to the point whereby they feel relatively confident that they have proven as correct. We are of course open to receiving your written papers on any research that you have been doing , that you feel is ready to be published.

Several members have already published papers on a plethora of topics over the years which have enhanced our understanding of those genetic traits. These are the efforts that go down in History as YOUR discoveries , and that further the Hobby immensely !

We know that there are a host of topics under investigation at the present. Joe Power in U.S.A., Hein Van Grouw in England and Andreas Bosits in Austria , have procured Lemon Racers and are conducting genetic tests to finally prove its place in the scheme of the dilution locus . Tim Kvidera is continuing tests on the "Whiteout " gene discovered by Gene Hochlan. Tim also has been testing the "Oyster" trait bred by Lynn Kraal. Charles Kendrix , Mike Bordelon and Brad Stucky each have new projects ongoing. There are some preliminary studies ongoing of some Indian and Pakistanian Breeds . We believe that this is just the tip of the proverbial Iceberg , as others secretly are attempting to gain insights on a number of traits that have already been established , but require further study and reporting.

The problem with some such test programs is that they are being conducted (1) by people who actually do not have a background in genetics studies and therefore may not be approaching the subject properly. (2) Individuals are attacking a project from a standpoint of deciding what the trait is first , then doing whatever they can to prove that they are correct! That ; of course, is not a scientific approach.

The ideal manner to approach many of these tests would be for Breeders to let everyone know what they are testing , then be open to share test birds , information , and even test results they have achieved . This we know more often does not happen except in rare cases among close friends because unfortunately there are people out there who will steal just about anything.

This having been said , we hope that you will consider sharing your breeding tests with us here in the Newsletter much in the way Charles Kendrix has done on our Facebook Genetics Group on several occasions. Shoibal Sabbir has also been breeding and observing traits in the very complex Classic Old Frill Breed and has shared some of his questions and findings . He now is breeding three Indian /Pakistani Breeds , and will be sharing details with us if all goes as planned.

There are many traits out there just waiting to be explained. It costs time and money , and if you think you have lots of time , I have news for you ... life is a short road .. we need to get trucking !

TOPIC : QUESTIONS AND ANSWERS , (PERSONS ASKING NOT IDENTIFIED HERE .)

What can cause dark to black beaks - besides dirty factor?

Bob Rodgers We know that all wild type birds (Blue series) , have dark to black beaks. This corresponds with the fact that they are indeed BLACK pigmented specimens . Dirty factor in both hetero , and homozygous state obviously adds to the density of the colour expression to include the skin. We see it in the tarsus and toes of the feet as blackened scales in the youngsters. Therefore I think the question should be , "What causes the dark or black beak to depigment?" The answer to that of course is multi - factional . Smoky factor is known to depigment the beaks and toe nails, Many of the other mutations that depigment feathers , also depigment skin , beaks and nails. Stipper , the grizzle family, even dilution etc., partially depigment or cause an overall lightening of the birds in one way or another.

Dominant Opal , How do you breed this color?

Bob Rodgers There are two forms of opal , One is Dominant Opal (O d) , and the other is recessive opal (o). The most attractive Dominant Opals hereafter referred to as simply Opals with a capital "O" , are in conjunction with the Checker pattern. There is a semi-lethal gene associated with pure Opals , which may cause death in the egg, or shortly after. These , IF they live may have bladder eye , and associated problems, and will be near white in colour. There are many ideas as to the best combinations in order to achieve the best pattern contrast , and since Opal is quite variable in its expressions , it is difficult to get consistency. The Opal factor effect is mainly seen on the coarse spread pattern areas. One problem is that it is difficult to eliminate the residual bronze left in the coarse spread areas by the gene. Barred birds can have white bars and that is how the Isabel colouration is created on red factor birds. Opal lightens the entire bird , so that reds appear yellowish, and blacks tend to look somewhat grayish . The flights usually express a distinct lightened van toward the tips on either side of the rachis (mid-rib).

You can place Opal with any of the three base pigments , any pattern, as well as other modifiers , but of course due to the fact that the gene does lighten all pigment , and is very unstable in its expression, finding a reliable approach to good ones is probably every bit as complex as good Classical Almond expressions. The spread Blue (black) Opals are washed out by the Opal gene so that the hidden Pattern shows. Therefore we can expect a variety of expressions . Some may even look reduced , with very good lacing , while others may appear messy tic patterns etc. T-Pattern that lacks bronze , but has good deep pigment may give the best laced effect, and homozygous Sooty may assist this expression.

Side note on Opal: Some have said that they found it best to mate their Opals back to the non-Opals in their flock that had been produced from their Opals, because they carried that trait . Well, of course they do not. Opal is a dominant , so if it does not express in some way , it is simply not present. I discussed this with colleague Jith Peter a couple of years ago , and he made the good point that the reason one would see benefit would be due to what is NOT carried by those non-Opals. If the Opal parent was a good bird then any non-opals it would produce , might be more likely to also be free of traits that are detrimental to good Opal expression , thus ideal for the breeding cage.

TOPIC : EARLY OBSERVATIONS IN NEW GENETIC TESTS ON LEMON .

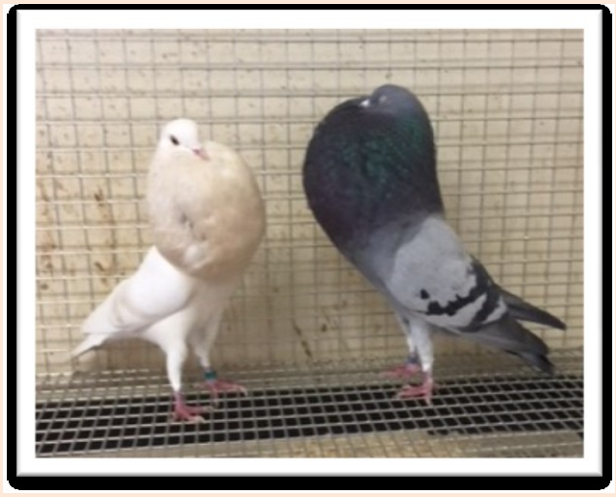
Joe Power, Hein Van Grouw and Andreas Boisits are presently working with the Lemon trait to demonstrate just exactly what the gene is all about. While earlier results by some and now preliminary tests still indicate that it may be the extreme phase of dilution that Hollander predicted one day would appear as a mutation at the dilution locus , we eagerly await the final test results that make it conclusive.

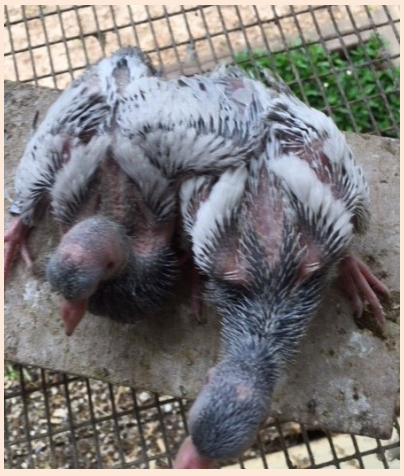
Here are a few pictures of their preliminary matings .

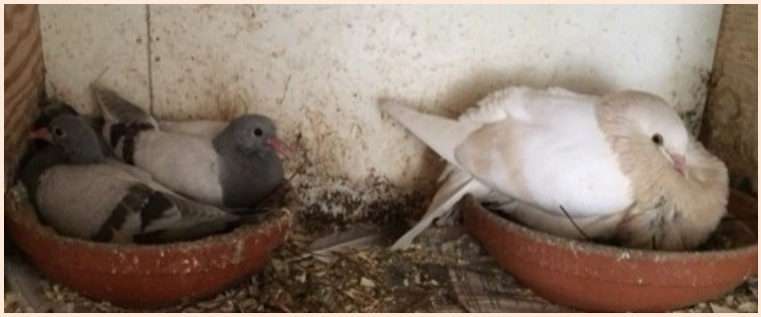
Joe Power U.S.A: Joe has been a very long term participant in this Newsletter , he has bred hundreds upon hundreds of classical Almonds in a number of Breeds and has worked extensively with the whiteside trait. He has shipped many Almond Komorner Tumblers to South Africa , the line was then sent on to Germany.

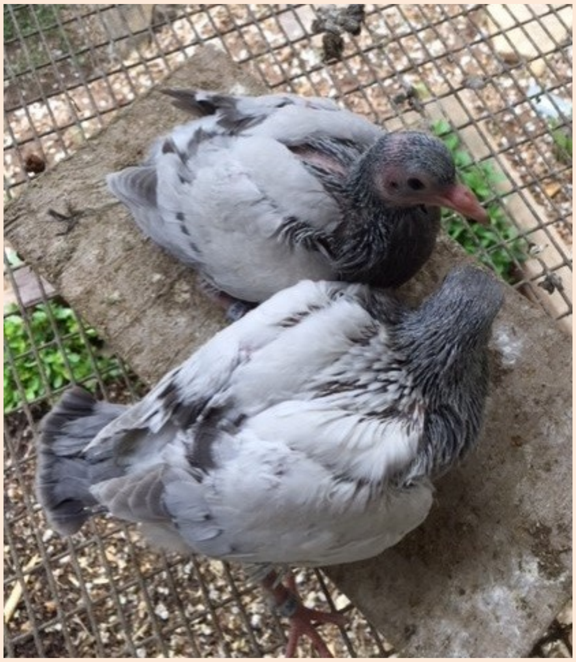
Mr. Joe Power., has mated a Blue bar cock split for dilution to a Lemon hen. Here are the first young and his comment.

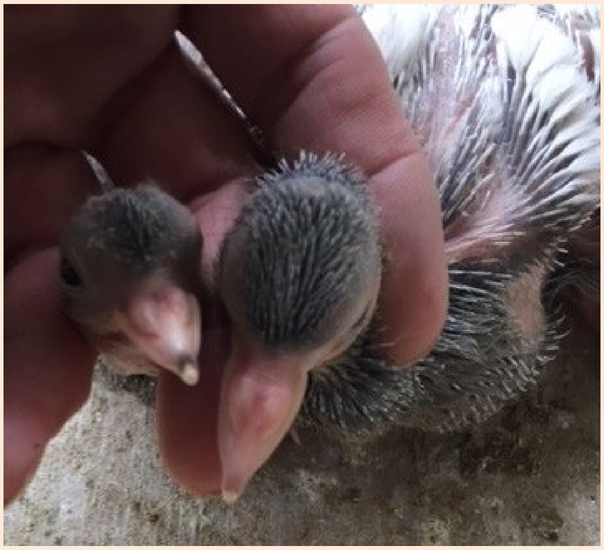
"A series of photos of an intermediate silver lemon cock. He is out of the blue bar cock (split for dilute) and the lemon hen pictured. The baby photos show the difference in color and beak ring from an early age, with follow up photos as they matured, as well as one of the siblings with a brown bar."

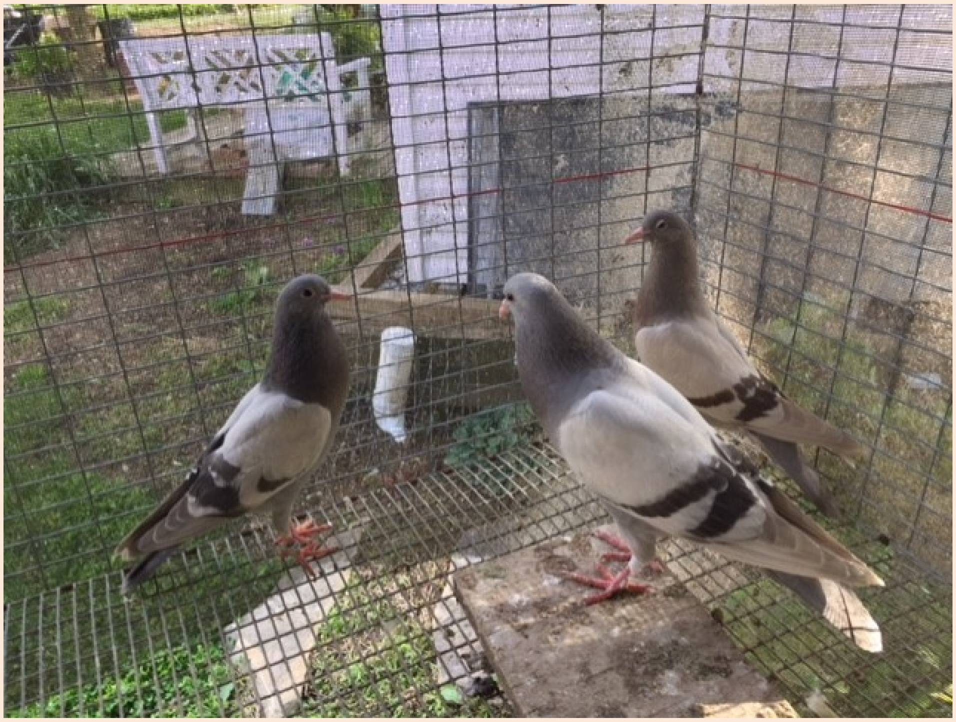












{ Editors' comment} The cock, foreground bird, shows a distinct "intermediate" silver phenotype which extends to the flesh beak and silvery flights . The feet and feather colour show no sign of Dirty factor, but possibly smoky factor . This is a cock and is dilute blue carrying Lemon. His sire must also carry brown as he produced a brown bar daughter, back right in above photo.

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Hein Van Grouw : Senior Curator - Bird Group- Dept. Life Sciences - The Natural History Museum UK.

Mr.Hein Van Grouw , England , has begun to test a strain of the Lemon Racers from the loft of Andresa Boisits . The following are some pictures of one of two foundation pairs , and f1 youngsters from both pair. The reason he used the naked neck is because he also wants to introduce the Ecru trait into that Breed.

The reason to breed to ash-red is to try to obtain a cross-over right away which he hopes will speed up his attempt to show the allelism of Lemon/Ecru at the dilution locus.

(1)

(2)

(3)

Here is his original pair using an ash-red naked neck cock , the deep red check son (1) was retained and mated to a Lemon Spread blue check hen and they now have two lemon chicks in the nest, shown above.

The spread factor ash (2) was not used , and the light coloured bird (3) came from a different cock that was ash carrying Pale factor. This youngster he says is a pale hen , also appears to be spread factor.

There apparently was no evidence of a lightening tone in the birds carrying the Ecru trait . Hein states that there is no Dirty factor in the Naked Neck male , but perhaps in the lemon hen.

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Andresa Boisits - has established "Ecru Barless, Ecru Bar, Ecru Check ,and Ecru spread under the classification as extreme dilution in the Standard Book of Austria for the Beauty Homer Breed..

The initial pair and their young which he says were typical dilute blue (silvers) were not photographed.

Mr. Andreas Boisits , Austria ...

Thanks for your invitation to contribute to the newsletter. First let me say that I appreciate your work a lot and always look forward to read the next issue. As I live in Austria (not Australia), which is a small country in the heart of good old Europe, my first language is German. So please feel free to correct my English if necessary.

Concerning ECRU: I got my first and only Ecru coloured pigeon, a blue base ecru checkered hen, in 2012 from Rainer Krebs, who is a breeder of rare coloured racing homers (see picture 001).

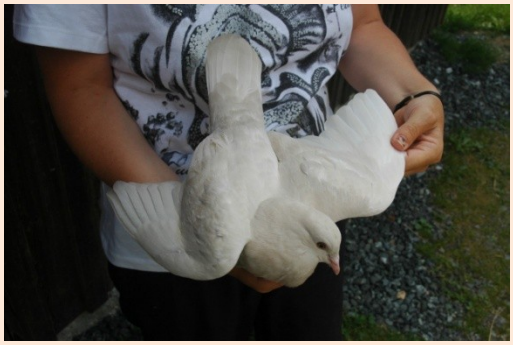
My motives were to play a little with the very new and attractive mutation (here in Europe) and to transfer it into a showable breed which is accepted in our book of standards. So I decided to transfer four combinations with the new trait into the Dutch Beauty Homer. Besides this, I bred a strain of common Colour Homers and raceless crossbreds out of my original hen from Germany.

In 2014 I first showed a bunch of Colour Homers in three Ecru-colours (blue base spread, blue base checker and blue base bar) at our biggest show of that year (see picture 002).

In December 2017 I showed the same three Ecru-colours on Dutch Beauty Homers at our biggest show of that year (see pictures 003, 004, 005).

Picture 006 shows a crossbred blue base Ecru checker hen.

Picture 007 shows a crossbred blue base Ecru spread in the juvenile feathers.

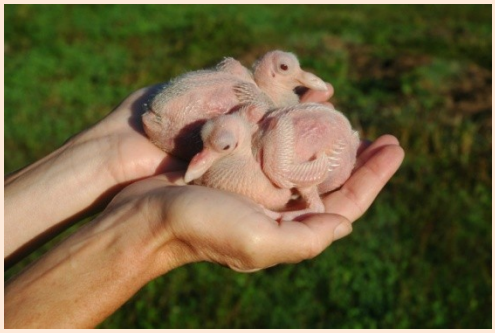


Picture 008 shows an adult Dutch Beauty Homer blue base Ecru spread.

Picture 009 shows an adult Colour Racing homer in blue base Ecru bar.

Picture 010 shows head, neck and typical eye colour of a blue base Ecru spread Dutch Beauty Homer.

Picture 011 shows two young Colour Racing Homers at the age of a few days.



Some genetics questions:

For my project, which was mainly to create Ecrus for show purposes, the genetics questions, whether the new trait is allelic to dilution or if it reacts epistaticly in some way was not so important. I just wanted to introduce the trait into a recognised breed. Nevertheless I did some research also concerning some open genetics questions too. And it was of course necessary for the process of the introduction and for the commission to find a clear nomenclature. So I decided that the trait in Austria should be called “Extreme Dilute” (not “Lemon” or others any more). And I decided to call the arising colour-combinations always with the term “Ecru” in front (so for instance “Ecru einfarbig” which means “Ecru spread” or “Ecru bindig” which means “Ecru bar” and so on). The commission accepted my suggestions and since early March 2018 now four Ecru-colours are recognised in the Dutch Beauty Homer (Ecru spread, Ecru bar, Ecru check, and Ecru barless) in the book of standard of our country.

In 2014 I decided to do a pairing, that is able to give a few more hints concerning the question, whether the trait is allelic to dilution (“d”). So I paired a khaki bar Figurita cock to a blue base checker Ecru Crossbred hen (see enclosed word document of “breeding pair 611”). Already in the first clutch, the pair raised two dilute blue checker cocks. Of course this is not a one hundred percent proof, that the new trait is allelic to dilution. One other explanation for this result could be that all Ecrus could be dilute too and there might be some unknown interaction between the two non allelic traits that might exist, but honestly this explanation sounds not very likely to me. Also other explanations are of course possible (please compare this link of Axel Sells homepage: http://www.taubensell.de/011_Neu_Archiv/lemon_ecru_extreme_dilute.htm). But certainly we do not know yet. To test all possible theories one must take a lot of time and one must have a lot of space, because it would only work by quantitative and statistic test mating.

Further issues:

In my stock the ratio between male and female sex occurs more or less as expected. Eye sight problems do occur sometimes in different degrees, but they are not very severe. I see no tendency at the moment that these eye sight problems occur more regularly in one sex or in the other. For breeding Ecrus in breeding pens or showing them at shows, these eye problems are acceptable, mostly not even noticeable. Maybe for a flying racers they might be a greater problem. Till now I could not recognise any phenotypical difference between heterozygous cocks in comparison to cocks which do not carry the gene. Best regards, Andreas Boisits

Zuchtpaar Nummer: 611

Rasse 1,0: Figuritamövchen Farbe: Khakifahl	Rasse 0,1: Kreuzungstier Farbe: Ecru gehämmert

Genotyp: b//b;+//+;d//d BR: 12 / T 858 A 7					Genotyp: +//.;C//?;d^{ex}//. BR: 12 / T 935 A 7		
Foto 1,0 (01802) 					Foto 0,1 (01833) 		
Brut	gel. am	befr	Schlupf	BR	Farbe / Genotyp	Fotonr./Archiv	Verbleib
1	15.8. 2014	Ja	Ja	14 / X 284 A 8	Blaufahlgehämmert/ +//b;C//+;d^{ex}//d	/	Geschlachtet am 18.2.15
	17.8. 2014	Ja	Ja	14 / X 285 A 8	Blaufahlgehämmert/ +//b;C//+;d^{ex}//d	/	Geschlachtet am 18.2.15
2							

Young from this pair (not pictured) were silver checkered , with no evidense of a lighter tone .


dilute brown (khaki) cock b//b ; +//+ ; d//d .


Ecru hen +//. ; C// ? ; d^ex//.