

### From a facebook post

The **red black-columbian Sussex hen** has black under colour, this is due to build-up of a lot of black pigment in the (original) 'grey' eb under colour. Next to columbian pushing surplus black into hackle, tail, flights and undercolour, mahogany is going its little share of 'columbian action' as well.

The buffish red under colour of the **Red Barnevelder bantam cock** is due to another e-allele, however which one is not fully clear since the female looks totally different from the male. Unfortunately no photo of her under colour, later more on her 'situation'.

My sused and therefore he is a bit too black black-tailed red. If he was columbian on eb, there would have been more black in the primaries too, similar to the Sussex hen. And in his hackle. Only his lower hackle shows the extra black which couldn't be removed by Db.

Another option to think of is, he is both eb and eWh, because the hen looks to have eb coloured hackle. If she was eWh her hackle stripes would have been red as in gold wheaten without Text & photos: Sigrid van Dort www.chickencolours.com



Red black-columbian Sussex hen...



In Europe we mention the ground colour and what 'version' of black. So 'light' would be white blackcolumbian. Blue light would be white blue-columbian. This is not yet done with all colour names. Harmonisation of colour names is necessary because of the many languages.



Red Barnevelder bantam cock...



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Barnevelder bantam female

with hackle pencilling.

page 1.

Belonging to the cock on

www.chickencolours.com



Sussex male red black-

# SAME COLOUR DOESN'T MEAN THEY HAVE THE SAME GENOTYPE



columbian belonging to the hen of page 1.

# **SHOWING COCK & HEN OF THE**

Red Orpington bantam hackle is red, no black. It is a black tailed red based on wheaten.





# DISCLAIMER

This article is based on the two specific breeds and their colours at the show in Hannover where they were photographed. There are many more options possible, depending on 'project' bird, breed etc. The basics are here explained about the under colour.

\*) Or Wyandotte single comb.

extra red. So the 'Braun' or Brown (in Germany mahogany red is called 'braun') Barnevelders have a mixed e-allele and the cock shows to be eWh/eWh.

### How to get black in under colour?

There are two ways to get black pigment in undercolour. e-Allele is one of them, think of grey under colour in partridge and also e+ duckwing. So the basis is there already, no ground colour fluff.

The other is some sort of columbian pushing black off the feather and into under colour.

Both only happen on eb. Even mille fleur on eWh shows buff under colour near the skin.

### eb does not discriminate either red or black

The eb base allele has no favourable pigment, it behaves friendly to both red and black pigment by default. You can load an eb with red and black as much as you want till the bird is solid black.

### When you mix breeds you might mix e-alleles

Take the Braun or red Barnevelder bantam. It is probably made with Rhode Island Red\*, same head, same body, same skin colour, only the tail is different. The RIR is eWh wheaten. therefore it can be easily made black tailed red (Db/ Db). When you mix a Barnevelder eb red blackdouble laced x RIR eWh red with black tail you mix the ealelles too.

You also get a load of black and mahogany from the double laced one and Pg. So they selected for the offspring with least and later no pattern. They got Db from the RIR, which causes the black tail and nobody noticed eb floating around, resulting in a hen with hackle pencilling

'Her situation' My guess the Barnevelder bantam hen is eb/eWh. since you have to pay attention to the under colour of course. In her saddle you won't find it, her hackle however does show it. Otherwise she would look the same as a red orpington, with iust darker red

hackle due to the soft feathrs without a sort of shaft stripes. Unfortunately the Braun or red Barnevelder bantam hen

was super nervous and running like crazy through her cage, hence the blurred photo. Still you clearly see her black hackles. More so than the cock.

### The red blackcolumbian Sussex however, apart

from the much darker red colour compared to wheaten based reds (derivates

from the magically black/red RIR) can 'contain' much more black pigment because eb allows this.

## Showing cock and hen of a variety doesn't mean they have the same genotype

The under colour is determined by e-allele and columbian genes. Don't be surprised about breeding heterozygous colours and only picking the 'right' ones for shows. It happens(or happened)



before that two different genotypes (colours) were used for either cock and hen beloning to the same hobby standard colour.

If chickens were snakes, there would be more of a problem them ending in the freezer or probably not at all. We don't eat snakes here, we do eat chickens.

Throwing away 1/3 or even half of them, never was a problem for the psychopathic breeder.

Since not everybody is without empathy, I wrote the genetics of chicken colours book, to avoid chickens being born with a 'wrong' colour.

### www.chickencolours.com, Genetics of chcken colours.

Red black-columbian Sussex is as the name tells with black in lower



Red Barnevelder is black tailed red with black in lower hackle and no Columbian.





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