

THE FOUR DIFFERENT CHICKEN BLUES $Bl/bl+$

Blue feather colour can look different and what is written is not always what is seen. This is why blue can be confusing, because What kind of blue should a chicken be? Even blue? Laced blue? Andalusian blue? Dusky blue? Which one for my breed?

There is even blue, optical laced blue and there are Andalusian blue and 'dusky' < project name, blue.

Solid or even blue, is seen on a bit harder feathers without a soft hairy fringe around the feathers, Paduas, White Crested Polish, Marans show this blue without an outer lace around the feathers very visible.

Optical laced blue is a softer feather, the soft hairs/barbs around the harder vane of the feathers take up more pigment and it only shows on the bird. When you hold a white paper under such an 'optical' laced feather the lace is gone. That's the simple test to



Photo:
Udo Ahrens

distinguish between Andalusian, 'dusky' and optical laced blue.

Andalusian blue is 'blue-laced-blue' and the base is E extended black which is a very blackish e-allele. Added are Co, columbian and Pg, the pattern gene. Clive Carefoot figured



Even blue (feather quality).



'Dusky' blue (additional new gene).



Optical laced blue (feather quality).



Andalusian blue (additional genes).

this out. Andalusian blue Andalusian fowls are in regards to the single lacing similar to other single laced as you see in for example Wyandottes. Only the base is different. The Wyandotte is eb asiatic partridge based, there is much less black in them by default compared to the E base of Andalusian blue on the Andalusian fowl.

Andalusian blue, how is it possible to make a blue laced blue feather? If you make a blue based on the E-extended black e-allele, add one dose of blue ($Bl/bl+$) and two doses (homozygous) columbian gene (Co/Co), columbian

can't clean up the feather vane from black (here blue) pigment as well as it can in eb-based, revealing the ground colour, either gold, silver and in cocks perhaps both, depending on what they are.

The role of the pattern gene Pg is to bind black pigment together, usually in lacings. When columbian is present, this gene pushes these lacings (as you can see in pencilled patterns) to the outer edge of the feathers. This also happens in the single laced Wyandotte, but in them the feather vane is 'clean' and free of any black (or blue), so the ground colour (gold or silver) is visible.



White crested blue Polish, even blue.

Blue laced on blue? It looks like black laced blue! E-extended black based Andalusian blue chickens have light blue feathers and a dark blue lacing around the feathers. We see this dark blue as black because it is so dense as a result of the compression caused by Co.

'**Dusky**' blue is another type of laced blue caused by a new gene that behaves like columbian on black (or blue or chocolate or lavender or dun) pigment. Dusky was discovered when a Serama was crossed to Dutch bantams by Henk Meijers (NL). Dusky starts to 'work' like laced if there is enough black (or its varieties) present. If not, it is visible as a very coarse stippling, much coarser than the stippling seen in pg+ on the back of the duckwing (e+) hen. Dusky is also found in imported Chabo from Thailand, in addition to Serama. This isn't surprising as Serama are made from Chabo or Japanese Bantams. As this 'dusky' gene isn't spread much in hobby chickens, it's possible that this can be identified as a fuzzy, thick, single laced blue in Chabo and Serama.

There is no Andalusian blue in Serama because Co/Co isn't present, although Db/Db with or without Pg (present in both Serama and Chabo) can in some cases take over the function of columbian, but such a 'laced' will look more like half-moon incomplete lacings or spangles.

These are the four distinct blue feather colours seen in hobby chickens today, and the explanations for why they look the way they do.

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Not all Padua have hard feathers, here one with slightly softer feathers, showing some optical lacing.



Even blue, no optical lacing around the feathers of this Drenthe cock and hen, a local Dutch breed.

In super soft feathered birds such as Orpingtons, there is so much black pigment in the soft feather fringes that the lacing is still visible on white paper.



Photo: Udo Ahrens



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Apart from the skin colour of these two Chabo, the blue hen on the left has 'dusky' of Thai origin, the blue gypsy-faced Chabo on the right has harder feathers, so no optical lacing.

A dusky blue + chocolate Serama hen in the USA. Because of the 'dusky', the thick, coarse, irregular lacings and light feather vanes make it visually different from the 'mauve' colour of other breeds, such as Orpington bantams.

A 'dusky' feather holds the thick black lacing even on a white paper background, unlike optical lacing.



Photo: Udo Ahrens

