Text & photos: Sigrid van Dort, others mentioned in the photos

AUTOSOMAL RED

Chicken colours consist only of red, black and no-colour which is white. There are two types of red: gold which is sex-linked and autosomal red which, as the name suggests, works the same on both sexes. Counterpart of gold (s+) is silver (S).

Autosomal red silver blue-pencilled (Asiatic multiple laced) or Blue Silver Orange shoulder where BSO stands for. The hens are silver, their hackle tells you. The cock is silver with autosomal red, therefore his shoulder is bright orange and his hackle a bit yellow. The ground colour of the hens a bit beige. These birds match perfectly.

Autosomal red is present on the breast of the duckwing hen (Red Jungle Fowl, RJF) and in the groundcolour. Silver hens should not have autosomal red in groundcolor, as this is called "rust".
This is however allowed in BSO which is multiple laced Asiatic blue silver partridge and gives the cock an orange shoulder. The hens are rusty silver, although at shows usually the most 'clean' blue silver multiple laced Asiatic partridge (eb) hens are put up as matching partner. Their brothers do not have bright orange shoulders though. Silver duckwing with orange shoulder can also be found in duckwing e+ in black or blue. They are standard colours in many countries.

Autosomal red can also be responsible for yellowish hackle and saddle feathers in cocks if this cannot be explained by UV light yellowing and the bird is pure silver. The cock is S/S and the hen S/-. In a pure silver hen there is no "gold factor" what is sometimes said in Breeders

***Creating silver blue-double laced Barnevelder, this is the stage where autosomal red from the red blue-double laced + mahogany, is still visible. Only by repeated backcrosses to 'clean' silvers, is a white groundcolour possible.
Using a Wyandotte would do wonders. A bit tweaking...***

Autosomal red in silver double laced Barnevelders.

Latin. A hen can only be silver S/- or gold s+/-. Therefore it is autosomal red and not a 'gold factor' when a silver hen has a lot of rust. To call rust or a brown hue on a silver hen a 'gold factor' is word-perversion and confusing.

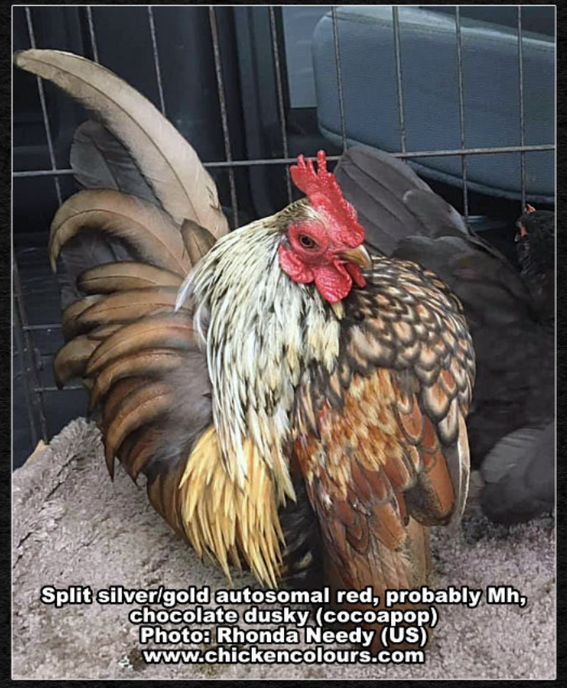
You are not exempt
Autosomal red can occur in all silver colour-varieties, so in duckwing, Asiatic partridge, in multiple laced Asiatic partridge, in single and double laced, spangled, black cuckoo etc etc. Also in white chickens whether silver or recessive white. Dominant white cannot block red properly, whether it is gold or autosomal red.

The leakage of autosomal red in recessive white chickens can be explained by insufficient activity of recessive white which is a gene that blocks the colour formation early. This is another story and worth an article by itself.

Silver is not a solution
Silver does not affect autosomal red. Autosomal red is increased by mahogany and diluted by red diluters. You can boost autosomal red by selecting for maximum expression, and you can do the same the other way round to minimum expression. It is difficult to get rid of it, only by selection and by crossing it back into chickens that don't have it, if you want white silver.

Is it silver-gold or silver-silver and autosomal red? Serama show what nature likes

It is difficult to tell if a cock is S/s+ heterozygous silver or if it is a pure silver S/S cock when this pure silver cock has autosomal red. Silver is dominant over gold and should therefore make gold invisible in an S/s+ male as well. This varies greatly between breeds. Brahma cocks are notorious gold concealers where many other breeds are not.
Hackle of an S/s+ cockerel is white or pale yellow and the saddle comes out of the back golden and is white or golden or pale yellow in the tips. There is a visual (look through your lashes) difference between the front (hackle) and back (saddle). If you have such an S/s+ cock in your breeding group, you will get daughters which are either gold or silver. You can tell whether they are gold or silver by their hackle, the body can be brownish from... Ar+. If you are not sure if your cock is pure silver, do a test cross, the distribution should be 50/50 S/- or s+/- in the daughters.
The mother doesn't matter whether she is gold or silver, daughters only inherit their s-allele from dad, from mum they get nothing hence the - behind the /.



Silver and split Silver/gold cocks, only cocks can carry both silver and gold.

Autosomal red is a mystery
Nobody knows what autosomal red is, whether it is one or more factors/genes. If there is a bit, it is visible, but you cannot get rid of it in the F2 by the Mendelian method. So it is more than 1 thing. Breeders abbreviate autosomal red as Ar+, the + because it is in duckwing RJF e+ and capital because it behaves so persistently and dominantly. In rare cases, Ar+ is suddenly gone, that can happen too, but I have not seen any evidence of it, who knows?

Don't create problems
A silver cock with a white shoulder is not waiting for Ar+. Therefore, it is not wise to cross gold into silver because you want certain colours or characteristics. For example, it has been a struggle for more than 10 years to obtain 'clean' silver black or blue double laced Barnevelders. However, Ar+ can also suddenly reappear in an established clean white silver

Wyandottes, silver blue-pencilled (Asiatic multiple laced}. The 2019 cock shows only a mini little autosomal red in his wing. The hen from 2018 has still some autosomal red. It takes time to clean up, this can be done with standard silver (black-)pencilled (multiple laced). Creating a colour isn't easy when you have to start with a gold variety.

line. Out of the blue, that is. What causes this no one knows... a printing error?

Because of this unpredictable behaviour of Ar+ it is not possible to make any statements about it. Maybe a hen has it and she doesn't show it because red is a 'testosterone' sensitive colour (red is sexy in nature among chickens) and she passes this on to her sons who then suddenly become silver black-laced red-shouldered?