

CONTINUOUS MOULT

Text & photos:
Sigrid van Dort
chickencolours.com

MOULTUS INTERRUPTUS



Joris, the weirdly moulting Silchin, from Serama (2008).

**WHAT IF YOUR
CHICKEN DOESN'T
MOULT
NORMALLY?
IS IT A GENE?**

Below: project Chabo from Serama who refuses to normally moult for 3 years.



The second terminology in the title is bollocks, it sounds fun though.

It says, interrupted moult (molt in American english). This means, not all feathers are dropped and replaced by new ones.

The other term 'continuous moult' tells that the big moult doesn't take place after Summer but goes on whole year through. Every now and then a few feathers are dropped and replaced.

A chicken friend asked me if I had ever written about it. No, I hadn't, because it is as it is. So, hereby, because I found some nice faded

feathers, I write an article on The Phenomenon.

Moult and moult

Since I've always had weird chickens, I can't even remember when all chickens were in moult together. Here they moult for a large part, hens moult after being been broody more than a few feathers at any time of the year, and there are ones who don't moult big at all. They drop a feather now and then, whole year through and from random places of their bodies.

How is one officially supposed to do the moult thing?

No idea what the cause is of either of these phenomena if not the

same, apart from dropping feathers after being broody which can happen in Winter too. A little search for literature on moulting behaviour.

A gene for (not) moulting

Sasaki and Yamaguchi (1970, Japan, National Institute of Animal Industry Chiba-shi) hypothesised that two genes were responsible for the long-tailed varieties, here



Serama hen with old and less old feathers.

Onaga-dori. Maybe it has to do with the recessive gene 'mt' of non-moult, which is why longtail breeds don't drop their feathers.

mt - not moulting

Mt+ - normal moulting

Gt - growth of tail feather length always continues

gt+ - growth of tail feathers stops after a certain time.

Of interest to us is mt or a type of non-moulting with sort of similar but different behaviour. Because eventually after 2 or more years, the feathers are still replaced. Not limited to sickles, saddle feathers and in both sexes, so hens too.

The difference between long-tailed breeds and ordinary chickens and their moulting pattern is in which feathers they keep; not moult. In the long-tailed breeds, they are only sickles, part of the secondary sickles and tail coverts plus the saddle feathers. In the continuous moulting normal (= not longtail) chickens both sexes keep random



Photo: Udo Ahrens

Early Chabo of Serama origin.

feathers for 2 or more years. It is not limited to the cocks as in Onaga-dori. The O-hens moult their tails in Autumn. The choc feathers are faded by UV light and the structure is frayed because worn out.

In a study of Masui and Kondo, mentioned in the Japanese paper, it was speculated that the way of keeping long-tailed breeds plays a part in when cocks moult. Keeping Onaga-dori in a closed box extends the duration of tail growth (next to their age), thus postponing the time of moulting. If you put them on the ground like normal chickens, they moult the tail in their second year. If you do the same with a Shokoku which doesn't have a very long tail and you put it in a box, their tail will also grow longer and moult will be delayed. However, the tail doesn't grow as long as the Onaga-dori, apparently some genes are missing according to M and K. In the end, we are not getting any wiser from this. Because mt relates only to cocks' tails, too.

Back to the title of this story and to the observations made the last almost 20 years which isn't described anywhere in literature or breeder's articles.

One year old feather and a 2,5 years old feather finally moulted. It was about time.

Attempt to describe

Normal moult, the big one, takes place at the end of the Summer at the start or during Autumn depending on the latitude. It is in the first weeks of October now, and I'm finding chicken feathers everywhere. Some places look as if there were an attack of a predator, lots of feathers at one spot. Probably they have been preening there.

Other chickens walk around like porcupines, whole feather fields on their bodies are covered with pin feathers. Others walk around without a tail or have become temporary 'naked necks'. Neck moult is a known thing although it can happen too due to stress. Oh, stress... industrial laying hens are forced into moult by starving them, so you can provoke moult too.

Strange moult was first noticeable when the Serama came from the USA to my place in the Netherlands. Because the climate is cold here, the Serama were kept indoors when temperatures dropped below 10C (50F) in the nights. There was no significant 'drop all feathers' moult ever. I thought it had to do with them not having lived at this northern latitude for so long. Malaysia and Indonesia are tropical countries where new feathers are not a necessity for good insulation against wind, rain and cold. South Louisiana has a Mediterranean climate, humidity x 100 though. Feathers were dropped the whole Winter through till... The next Winter and on. Though, no real 'hard' moult. Over the years, I got used to cocks without main sickles any time of the year. There was just no telling when their tails were complete.

The phenomenon of continuous moulting only really started to be noticed and became annoying when Serama were used to cross choc (recessive sex-linked chocolate) into other breeds. In the Silkies and in the Chabo. Because choc is a solid colour whose base is black and no other colours or patterns are added to it, a feather differing in colour is



quickly noticed. The result is a patchy choc with several shades of brown. Dark brown are the new feathers, those from last year are medium brown to buff and those from the year before are cream. The bleaching of feathers is worse when exposed to lots of UV radiation (sun). Feathers lying horizontally suffer the most. The underside of such a chicken is still brown. Also the feathers overlapped by the ones above.

What about the inheritance of this 'don't moult all feathers'?

After backcrossing to the target breeds Silkie and Chabo, it took many years before this trait stopped and the chickens started moulting as normal chickens. In other words, it is hereditary. It takes very long to get rid of. Using new blacks to make chocs probably is the key. Which might indicate something(s) recessive? No idea. Especially for breeders who wanted to enter shows, patchy chocs were no fun. For those who did like something different, it was a bonus: 3 colours for the price of 1 in older chickens (coup soleil).

Rigidly continuing to backcross to the target breed with unrelated stock, was the only way out. This succeeded in the case of the Chabo. With the Silkies, it is still a thing in some unbearded (made of Serama). The bearded Silkies were

made of Cochin bantams, which had already been 'purified' of refusing to change feathers as a normal chickens should. The Cochin bantams no longer suffer from it, which are also made from Serama at first. Perhaps the Serama used to make choc Cochin bantams were less affected?

Concluding

Meanwhile, we are almost 20 years on and I have project chickens who (still) occasionally replace a feather. They are a cross between Serama x Silkie many generations ago and a choc Cochin bantam normally moulting. There are two brothers, one (Joris) takes it easy on moulting and the other behaves like a normal chicken moulting. Both have the same mother and father who was more or less normal moulting. See photos. Just very sensitive to bleaching.

The question is, as the title suggests: are we dealing with continuous moulting here, or intermittent moulting? I think it comes down to the same thing, it's a matter of perspective. An interrupted moult of one, two or three years of some random feathers.

With Joris (project Silchin), it is mainly the tail that doesn't want to moult, just like in the long-tailed breeds. Could a long-tailed Onaga-dori have been used in Serama



Left: the Silkie father from Serama origin moults sophisticated, sort of. Right: Silkie father, Cochin bantam mother on the right and above the weird moulting son Joris the Silchin.



Serama with neck moult. Wheaten Chabo in foreground only lost tail.

after all? Those have been proven to be a Chabo derivative, being a normal legged, normal combed mini Chabo (Japanese bantam). We will never know, because why would one want to investigate this phenomenon of moulting interruptus?

What matters is: it is now described THEREFORE it exists. See the photos as proof.

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