

GOLDEN LACED COCHINS

by Gail Carlson (2013)

It's hard to imagine that there aren't more Golden Laced Cochins seen in the showhalls, because a good Golden Laced is a definite show stopper! But that beautiful lacing doesn't happen overnight. Genetically speaking, the single-laced pattern is one of the most complex and difficult to achieve. Most breeders have been working on their lacing programs for several years - not yet to perfect it, but just to get it right!

A very basic knowledge of the genetics involved is necessary for the breeder to achieve great lacing; this will also save you generations of time and money and culling. I am not a geneticist, and I certainly haven't yet perfected the lacing on my Golden Laced Bantams, but I will try and explain the concept from my layman's point of view, and how I am working to improve my birds.

First, the Allele: This is your foundation. There are five different alleles on which all Varieties are created. Most patterned birds, including Cochins, are built on the eb Brown allele. Here you will find the Partridge and Silver Penciled, Columbian and Buff Columbian, and Golden and Silver Laced Varieties. Please note: The major difference between a Laced Cochin and a Laced Sebright is that Cochins have black tails, and Sebrights have laced tails. This is because, while the lace pattern genes are identical, the foundation allele of Sebrights is ER Birchen. *The same gene composition can, and usually does, act differently when on a different foundation allele.*

Second, the Genes: Single-Laced birds must have all three of the following genes, and they must be 'complete' for these genes. Complete means they have two copies of the gene: they must get one copy of the gene from the sire, and one copy of the gene from the dam. Complete birds are referred to as homozygous. Incomplete birds (having only one copy of a gene) are called heterozygous.

- 1) Pg/Pg (the Pattern gene): *Affects how the black in the wing is distributed, generally into concentric circles.*
- 2) Co/Co (the Columbian gene): *Known primarily to restrict black to the hackle and tail, it reacts quite differently when combined with other genes.*
- 3) MI/MI (the Melanotic gene): *This is your black enhancer.*

Why do we need to know the above basics? Because Laced Cochins are still a work in progress for most breeders. As of this writing, I'm not aware of anyone that has perfected their lines - lines that will reproduce true with lacing as defined in our Standards: Clean, wide centers free of shafting; edges with thin, crisp, razor-sharp lacing that surrounds the entire feather; black lacing with a good green sheen.

For me personally, I am not as concerned with the shade or tone of the gold as I am with getting the lacing correct. It is my belief that your males will usually be redder than the females, as males are more prone to carrying the Mh (Mahogany) gene. No matter what shade of gold, or if it is more of a gold-red, just be sure that you have only one base color throughout the bird. You don't want gold hackles, red wing bows, and a back or breast that is somewhere in the middle. Yes, these are Parti-colored birds, but think of it as more of a very refined dinner party - not a spring break beach party!

Here are the most common problems encountered with single-laced birds, and what the geneticists tell us is necessary to correct:

- 1) Half-moon or crescent lacing: the lacing is usually seen only on the tips of the feathers, and not surrounding all sides of the feather. *Bird is probably incomplete for MI; this is probably the hardest to fix, as it involves crossing to Black (or Mottled), and pattern will be lost for at least a generation.*
- 2) Fat lacing: the lacing is too wide, and extends towards the center of the feather rather than staying at the edge of the feather - can also give the appearance of fat shafting. *Bird is probably incomplete for Pg; best cross is to a Partridge (or Penciled if working with Silver Laced).*
- 3) Mossiness, Mealiness, Peppering: *Bird is probably incomplete for Co or MI or both; best cross is to a Buff Columbian (or Columbian if working with Silver Laced). If Bird appears dull and more grey than black and lacks the green sheen, it is probably incomplete for MI.*

Other factors, besides genetics, can also affect the lacing: weather, molting, laying, and feather width can all influence the quality of your bird's lacing. We can't really do much about the weather, molting, or laying, but we can certainly work to improve the feather width. Generally, the wider the feather, the better the lacing. This is why many recommend a cross to a Mottled - they are known not only for their great type, but also for their great feather width. Width of feather may be why Large Fowl females have better lacing than their Bantam counterparts - they simply have wider feathers. The Mottled gene (mo) is recessive, so with a single cross the mottling will stay recessive (hidden), but remember that the Mottled is a Black bird - built on a E Extended Black foundation. Extended Black is dominant - this cross will cost you an extra generation or two to get back to a patterned bird.

When selecting which stock to keep and which to cull, type should always be foremost in your selection. If your birds have good all-over lacing - great!! Then you can select based on which has the best lacing, as stated above. You are also going to have to start selecting for the same details breeders of other Varieties work on: combs, wing carriage, foot and shank color, etc. But if you face any of the most common lacing issues as noted above, you will most likely have to cross in another Variety to complete the gene pool. Selecting for the "best of the worst" when dealing with incomplete lacing won't work - the lacing will continue to get progressively worse with each generation. You need to complete your gene pool before moving on.

Last, don't cull for pattern too early. As no one has the pattern mastered yet, no one can tell you for sure what juveniles should look like as they develop and mature. My best advice is to give them time - at least 6 to 9 months, maybe even a year. But keep a journal of what they look like as they mature - I personally like photo journals - weekly for the first month or so, and then monthly. Don't worry, you will soon learn to recognize what develops best within your own lines.

I hope this helps the novice breeder, such as myself, understand a bit more about Golden Laced Cochins. Don't let the genetics scare you away from this regal Variety. Once you identify what genes may be incomplete in your birds and what Variety will best complete the genes, then get the absolute best stock you can to cross in. This is one time when "Two Wrongs Don't Make A Right" couldn't be more true. And don't forget your best resource of all - the knowledge and experience of other Cochins International members who are also working with Golden and Silver Laced birds - they are here to support you and help you reach your goals.

