

# NEWSLETTER<sup>7/7/2016</sup>

Second Quarter 2016 Volume 4. NO 2



## Presidents Letter by Elissa Teel-Duggan

I hope that everyone has had wonderful luck with hatches this spring! I have had two small hatches and my ability to hatch males is unparalleled! I am hopeful that one will end up better than my current flock cocks. Although my current boys are working in the right direction with regard to increased size and lower tail angle, I still have some to go before I am where I need to be to match the standard.

If you weren't able to watch the last Club Meeting, you missed a great slide set on silhouettes. The Club has been working on developing a pair of silhouettes that can be used as the type or shape basis for the illustrator to use as a reference when we commission the portraits later this year. These portraits are necessary for the Club as part of the APA admission process and will also be a very important visual reference for breeders as well. We will make the silhouettes available to the Club membership as a guide for shape. Currently we are having several APA judges comment on the shapes before another rendering occurs. With any luck, we can put several versions to the Board at our next meeting in August and we can hone down on one or two favorites to put to the Club Membership.

In this Newsletter, Kestlyn has prepared some information on the Annual Egg contest for you. We are opening up a new Question and Answer section for our Newsletter. This will be a place where members can ask questions of officers to clarify terms or goals or any other chicken related questions you might have for us! I have also written a short piece where I describe what 'tells' I use in my flock to help me differentiate what I believe are birds who are expressing Cream (ig/ig) and those who are expressing Gold (either Ig/ig or Ig/Ig). In this article I am concentrating on the youngsters and I will elaborate in a future article on the mature birds. I want to be clear that birds who I deem to be expressing gold are still 'Cream Legbars' although not perfect examples of the breed. For me, I am using this as a tool so that I can eventually get uniformity and consistency in my flock. If a bird is genetically split for cream (expressing gold) he may or may not be light enough to be a visual representation of cream, but for me as a breeder it is important for me to understand the genetics of my flock and the dilution status of each bird so that I don't have any surprises when I hatch chicks. Very saturated individuals are placed into the 'Golden Crele' category. These are mainly Ig/Ig and don't carry 'cream'. Each breeder will need to read the standard and look at his or her flock to determine where they feel each bird best fits overall.

Eventually, the Club membership will need to develop some definitions of common terms so we are all on the same page. For example, I have been using my own definition for 'Cream':

*“Cream is a color range that is produced from having 2 copies of the inhibitor of gold gene that dilutes gold; the visual range can vary from off-white to a buttery-yellow color depending primarily on the amount of black (melanizers), the amount of red and the type of barring there is in the bird’s genotype with the average cream being described as a ‘pale buttery’ color.” (Further clarification: I personally would define a male bird as non-‘Cream’ if he had gold in his wing triangle and if he had a marked mismatch in his lower saddle vs upper hackle ie the saddle color matches the wing triangle, not the upper hackle, in the non-cream bird).*

How do you define Cream? We need you to be a part of the discussion! I encourage you to send your you answer to [DrETD@msn.com](mailto:DrETD@msn.com) and we can share all of the submission in a future article.

## Treasurers Report Prepared by Kestlyn Penley 6/10/16

Income from 1/29/16 - 3/22/16

11 Full Completed Memberships

+\$132.00

Interest

+\$0.05

Outgoing Expenses

Paypal Fees (11 x \$.65)

-\$7.15

Join Me Meeting Site Yearly Fees

-\$239.88

Ending Balance

Total: \$3421.08

B. Income from 3/22/16 - 6/10/16

10 Full Completed Memberships

+\$120.00

Interest

+\$0.05

Outgoing Expenses

Paypal Fees (10 x \$.65)

-\$6.50

Ending Balance

Total: \$3534.63

# Articles

## Cream vs Non-Cream: Tells In One Flock Part 1, The Youngsters by Elissa Teel-Duggan

When I started raising Cream Legbars 3 years ago, I struggled to understand why I had such a spectrum of color between off-white and rich gold in my flock and what the true nature of the color Cream was, from a genetic standpoint. There has been much back and forth between breeders with one end thinking that Cream birds should look similar to silver. There is evidence for this since Michael Pease, in an article in the 1948 Autosexing Annual, wrote: “Cream plumage in Poultry was first described and its genetics explained by Prof. R.C. Punnett. It is due to a gene which so dilutes Gold as to make the color indistinguishable to the eye from silver.” Other breeders felt that all the birds originally imported to the US should fall into the spectrum of cream and are frustrated by the focus on what they refer to as ‘monochromatic ultra-light’ birds and have called some of the light ones ‘Silver’; the descriptor silver is genetically incorrect as this breed is not silver based so a better adjective would be ‘silvery’. There is also a reference by Punnett that during the course of the discovery of the ‘blue’ egg gene, “an unknown type of plumage color made its appearance...there appeared some birds with a very pale creamy ground color in addition to those of the normal gold type...” So which is it Mr. Punnett, a new and unique color or a mimic of silver? I think there are other factors such as the amount of red (chestnut) and the amount of black (melanic is the word Punnett used to describe the black pigmentation, we use melanotic in the US) the bird carries and that influences the end color and creates the kaleidoscope of colors that we see in the Cream Legbar. Add to that the breed is barred which is a powerful dilutor in its own right, the color spectrum is quite difficult to normalize into one single ideal color.

I believe that just as some of the first US imports lacked crests, some of them were not expressing Cream and were rather split for cream (carrying only one copy of the dilutor). I started out with 2 males from a breeder who had worked to achieve Cream in her flock and 3 females from 2 sources who I discovered were expressing gold. Two were very obviously gold-tinted and the other was lighter and I assumed was Cream until she threw very gold-colored males. Over this time, I have kept track of the offspring and have, like many breeders, figured out some tells so that I can determine the genetic state of an individual bird. I do on occasion still get an ambiguous bird who doesn't follow the rules, so there is still some work to be done in my flock to get better color uniformity.

Unlike many breeders, I am not eliminating the gold from my flock first, but rather focusing on the best type. Whether a bird is expressing cream or expressing gold is a simple one to two generation fix and just because an individual is not Cream doesn't mean that they are not good foundations in a breeding program if their type is excellent. Breeding chickens is quite different from what most of us are used to with dogs, horses and cattle—you judge the animal on its type and color and how closely it matches the written standard and not on its pedigree. A bird that strays too far from the standard will be judged to be ‘impure’ or ‘not a Cream Legbar’, but if a breeder is aware of the Legbar and has a plan, the bird may be useful to enhance traits that are lacking in their flocks and their offspring will once again be ‘pure’.

Here are the important points that I have found when looking at my flock. These may not hold true in another breeder's flock with a different set of genetic components but it has worked in my own so that I understand the 'ig/ig' status of an individual bird.

- 1) Down: I have not been able to accurately know if a bird will express Cream by looking at its down. There are normally two down color phases in Cream Legbars—a dark and a light phase. I suspect that this complicates the determination and if a breeder has only one phase they may be able to be more accurate. I *can* tell how much black pigment they will carry as an adult by looking for the depth of grey in the males with the more charcoal-downed boys ending up being a much darker (basalt) grey than the lighter silver-grey downed lighter slate color as an adult. In the females, the brown stripe tint also tells me how much melanic color they will have with a sable color (brown-black) leading to a girl with darker hackles, a greyish or dusky breast and more black breast tipping. I can also tell if there is an excess in chestnut by the amount of the cinnamon color throughout the down, especially in the males. The more cinnamon-y the down, the more red color appears later on. This is best observed in the light phase and will be overshadowed in the dark by the grey. I personally think that some chestnut in the males will lead to a better-colored breast in the females so I am not eliminating chestnut from my flock but attempting to maintain chestnut in moderation.



- 2) Males: I can't reliably judge color in the male until he starts growing in his secondary feathers at 12-14 weeks old. I cull for other traits before this but won't assess color until that time. In Punnett's Cream Paper, he said "The difference in ground color between cream and gold offers a chance of distinguishing in a black-red between coloration due to gold and that due to chestnut. Such a test is the outer web of the secondaries which in the Brown Leghorn is of a bright gold-brown." He references color plates and continues "The bright brown outer web of the [Brown Leghorn] is replaced in the [Cream] by white." He goes on to say that this is evidence that the pigment in the secondaries is independent of chestnut i.e. there is no chestnut found here. (<http://www-old.ias.ac.in/jarch/jgenet/48/327.pdf> pg 329) I do disagree with him on one point. In many of the males, the color in the secondary's is an off-white not plain white. This point would be missed except that in the Cream Legbar there is black and white barring and there is a subtle contrast between the white of the barring and the cream on that outer web. From a distance, the triangles appear white but up close, many times the cream is very subtle but distinguishable.



I take the males at approximately 14 weeks and pull out their wings and observe their secondaries. If I see gold and white, I judge them to be non-Cream (expressing gold) and if I see white or cream and white then I judge them to be expressing cream. The caveats with this is that if the grey barring extends to the outer web of the secondaries, then it will overlay the gold and may obscure the genetic state of the bird. This is why I am not at this time making an effort to get the better barring onto the wing triangle—the white color is a tool for me and I will work on that later. For me, this is a tool only to understand the genetic state of my flock and I am not necessarily removing the ones that are expressing gold from my flock.



In these above photos you can see that the birds have similar amounts of chestnut in their coverts. The Black fellow has brown in his secondary's, whereas Orange has off-white. There is a subtle difference in the color of the saddle. Black is expressing gold where orange is a buttery color. To my eye, the wing color difference is very obvious whereas the saddle color is very subjective. At about 6 to 8 months, they settle into a color that can be lighter or darker, but I will know what the first feather color was displaying so that I won't be confused about their genetic status later on and be surprised if they start throwing more 'colorful' offspring. I chose the above two examples because they are hatch-mates and have a similar amount of chestnut. Black Band ended up lightening up profoundly as he matured and had numerous solid white flight feathers which mimic the white-looking wing triangle that is a 'tell'. Orange Band matured into the richest butter-cream Cream color I have had in a male which I attribute to his weak barring and blackpigment over-expression\*. In the end, Black ended up being as 'light' or 'lighter' than Orange even though he was genetically expressing gold and Orange was diluted with cream.



- 3) Their wing triangles are their best differentiator, with Black having a slight caramel color to his point and Orange's looking very uniformly white. Just like the earlier photo, his wings were intermixed with cream but that subtlety is lost from this distance. Another more subtle differentiator is the hue of the chestnut with Black's being more rusty-orange and Orange's looking more washed out. When looking at the upper hackle, lower saddle and wing triangles, I note that in the boys that express gold, the wing triangle matches the saddle best and in the boys expressing cream the lower saddle matches the upper hackle best.

\* Note that Punnett did refer to the enhancing influence of the melanizers on cream in his Cream Paper. When he looked at the effects of Cream on Buff, he said ( pg 327-8 under the Buff Leghorn Cross) "It was noted that some of the females, particularly those with more melanic pigment, showed a slight gold tinge, whereas the males not only was this gold tinge never present, but the cream tinge was so faint that they could easily be mistaken from silvers." This brings up two important points 1) melanizers will

enhance the expression of cream and may be an important reason why some birds express cream more intensely than others and 2) males, even in an unbarred bird, seem to show more dilution than females.



- 4) Females: I find that in youngsters, I can reliably determine dilution status in about 90% of my hatch when they start growing in their hackles at about 3-4 weeks. The cream-expressing girls will have light (off-white, cream, light grey) hackle shafts whereas the gold-expressing girls will have an orange-y to golden brown shaft. Ten percent fall in between and are a mystery. As they mature into older pullets and hens, the hackles

right under the ear next to the throat show the color the best, along with the lower hackles, peppering color of the secondary's, and overall tone/warmth of the body. I don't look at the intensity of the salmon color as there appears to be a light and dark variant and I don't look at the red in the throat (although the brighter gold expressing girls will have more red in the throat). I will elaborate on the adult plumage variances in a future article. -



In summary, there are a few telltale things I look for and use as a tool to help me understand the genetics of my



flock. I don't cull for down color except to remove any ambiguous chicks from the group and know that females that are near-black will have unacceptably dark breasts. Female chicks I look at between 3 and 4 weeks to determine genetic ig status, and the males I wait until their secondary's come in at 12-16 weeks to assess the appearance of gold/caramel indicating they are at best split for cream. I recommend photographing the birds and do include a physical marker such as their band color in an obvious way so that I can remember which photo belongs to which bird later on. In my flock, my goal is to have a rich butter color (non-white) and a distinct variation in males where they are lighter on top and darker on the bottom and a good salmon color in the females with enough cream in the hackle to be off-set visually from the body's ground color. To get this goal, I want a decent amount of melanization because this will give me better (darker) breast barring in the male and fewer positive white feathers in the wings and a richer cream color. I also like a moderate amount of chestnut because I feel that the salmon on the female's breasts are a better color and not washed-out looking. Plus, I prefer the look of the males with a little chestnut—but not solid chestnut wing patches. This is a very complicated bird, genetically speaking, and I think that it will be a long-term project for me to get stability in my flock. I hope that this is helpful to other breeders and would love to hear any tricks you might have in your flock. I will concentrate on adult plumage colors and elaborate on my interpretation of Cream in an upcoming article.

References:

Punnett's Legbar Paper: <http://www-old.ias.ac.in/jarch/jgenet/41/1.pdf>

Punnett's Cream Paper: <http://www-old.ias.ac.in/jarch/jgenet/48/327.pdf>

A copy of the 1948 Autosexing Journal's Article on Cream Legbars is available on request.

### Third Annual August Egg Production Contest Kestlyn Penley

It's that time again! Time for the Third Annual August Egg Production Contest! The Contest will run August 1-28, 2016. Sign up by sending your name, individual hens or flock name/number of hens to [creamlegbarclub@gmail.com](mailto:creamlegbarclub@gmail.com) between now and August 1.

How does it work? Gather Cream Legbar eggs keeping track of how many you collected for a week, and send in your totals each Monday (from the previous Monday through Sunday) to [creamlegbarclub@gmail.com](mailto:creamlegbarclub@gmail.com). As in the past you may enter single hens or flocks (total number of eggs collected for the week divided by number of hens will give you a weekly average).

New for this year!!! Weekly winners! If you can not gather eggs all month, why not try it for a week? Weeks will run August 1-7, August 8-14, August 15-21, and August 22-28.

Prizes are being gathered now, but look for exciting items to choose from like hatching eggs, free Full Membership for a year, and Cream Legbar Club paraphernalia!

Remember to sign up by August 1! Wishing you many blue eggs this summer! If you have any questions, feel free to contact us at [creamlegbarclub@gmail.com](mailto:creamlegbarclub@gmail.com). Best wishes for many blue eggs this summer!

## Cream Legbar Club Q & A: Elissa Teel-Duggan

*This is a new section in our newsletter where members can ask questions of our leadership team. Questions can be anything you want discussed--on topics ranging from history to future club plans to husbandry and more. We will do our best to have the most appropriate expert answer the questions for you. If you have the question—many more members do to! Email questions to [DrETD@msn.com](mailto:DrETD@msn.com) or [creamlegbarclub@gmail.com](mailto:creamlegbarclub@gmail.com)*

**Question:** Vivianne L sent in a question after the last Newsletter article on color. Vivianne asks “**Can chicken breeders use Pantone colors as a guide?**”

**Answer:** First of all, Vivianne, I wanted to thank you for taking the time to write and ask this very good question. The short answer is yes. Breeders have used several different methods to try to talk colors long-distance with Pantone being one of them. As I discussed in the article, I have found that the lighting does influence the color quite a bit along with the human perception of color, but it gives at least a common reference point which is an excellent place to start. There are three different color references I know of that can be used.

The OAC (Online Auction Chart) is the color chart that I use. This was developed several years ago for use as an online color reference. I believe that the original printing was a limited run and that it is no longer available except through secondary sources. You may still get lucky and find one online. It has an advantage of having many different reference colors, so it could be used for both feathers and eggs. I personally use it as an egg color reference and not for feathers. Ameraucana Egg Reference Chart is sold by the Ameraucana Alliance. <http://ameraucanaalliance.org/ClubMerchandise.html> It is a compact color wheel (really a rectangle) that shows the range of blue and green that is produced by ‘blue’ egg gene birds. It is inexpensive and very useful and still in print but is limited to the blue-green spectrum.

Pantone is a private company that produces Pantone Guides and a Color Matching System. Pantone is primarily used for graphic design and computer work and has an unparalleled range of colors in its palette. This topic came up on BYC several years ago and at the time I looked at costs. Because the colors are considered to be intellectual property and there are no open source products available, the discussion came to the conclusion that while Pantone was an excellent resource, it was cost prohibitive for the average breeder. When I looked at purchasing the chart the time, I recall it was over \$100 for a basic color set, whereas the OAC was \$7 and the Ameraucana chart was \$5. If two breeders have access to Pantone, then it would be a fantastic way to have a common color reference but I would have a hard time recommending it for everyone because of the expense.

## Club Information

## CLC Officers

President: Dr. Elissa Teel-Duggan

Vice President: Anthony Markley

Secretary: Rinda Myers

Treasurer: Kestlyn Penley

## Regional Directors

Central: Open, Volunteers Welcome!

Eastern: Tru Cuoghi

Southern: Curtis Hale

Western: Jane Johnson

Newsletter Editor: Carol Flaming

Website Chair: Colleen Duggan

**Next Club Meeting**    Member Meeting: Sat September 24 (AM 9 Pacific-10-11-12 Eastern)

**Next Board Meeting**    Sat August 27 AM (9-10-11-12Eastern)

Check your email for Meeting reminders and an invite to the online meetings. The invite information is always the same, so you can use your old invites sent in email to find the link.

Join the club or renew at our website [www.creamlegbarclub.com](http://www.creamlegbarclub.com)

Visit our Facebook site <https://www.facebook.com/CreamLegbarClub>