The Blue Egg Clucker

Quarterly News from the Araucana Club of America
Summer, 2011 – Volume 17, No. 2

Karen Liguori's Mille Fleur Araucana Project

In This Issue

The Blue Egg Clucker is published four times a year: Spring (March), Summer (June), Fall (September) and Winter (December).

Club Volunteers:

President	Rosalyn Upson 84851 McBeth Rd Eugene, OR 97405 rosalyn.upson@gmail.com
Secretary	Fritz Ludwig 207 Pickens Drive Pendleton, SC 29670-9727 secretary@araucana.net
Membership	Cindy Mansell crazybluechick@yahoo.com 315-577-2924
Treasurer	Joyce Ludwig treasurer@araucana.net
Historian	Nancy Utterback 11683 North 600 West Frankton, IN 46044 leeutterback@hotmail.com
Newsletter Editor **Handbook Editor**	Rosalyn Upson rosalyn.upson@gmail.com
Webmaster	Lily Plasse
Forum Admin	Carl R. Friend crfriend@rcn.com
Forum Mod	Karen Liguori 4841 Clear Creek Road Placerville, CA 95667
ACA Standards Representative	Terry Reeder P.O. Box 928 Aptos, CA 95001 reeder@jps.net
Show Committee	Rosalyn Upson, Chair Cindy Smith Telah Ferguson Cindy Mansell Dick Dickerson
President Emeritus	Cathy Brunson 6598 Fairview Dr. King George, VA csbrunson@earthlink.net

ACA MISSION STATEMENT

The Club's Mission is the promotion of the Araucana Fowl as described in the APA's and ABA's Standards of Perfection through breeding, exhibition, and distribution of information

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Dues are $20.00 for one year with delivery by mail, or $20.00 for two years with electronic email delivery. When renewing your membership, either use PayPal at the club website or mail your dues to:

Fritz Ludwig
Araucana Club of America
207 Pickens Drive
Pendleton, SC 29670-9727

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Araucana Club of America
www.araucana.net/

ACA Forum
www.araucana.net/forum

American Bantam Association
www.bantamclub.com/

American Poultry Association
www.amerpoultryassn.com/

From the Editor
by Rosalyn Upson

The cover picture is a bantam Mille Fleur Araucana from Karen Liguori's breeding project. She started in 2006 with a few Mille Fleur acquired from an abandoned project of another breeder. The type was poor, so she crossed them with her own Gold Duckwing bantams and concentrated on type. Now she is working on good color. It's very much a work in progress! In this newsletter we feature an article on recognizing and dealing with Coccidiosis, one of the more common health issues. I was prompted by an outbreak in my own flock, when I started noticing some "dirty bottoms" and a drop off in egg production. Did you know that two of our members have been involved with providing Martha Stewart with Araucanas! And there is yet another Araucana myth I came across that says Araucana eggs are less allergenic than factory farm eggs. Read the article to see if it's true! And learn more about blue and brown egg color in Araucana eggs. There isn't a Photo Highlights page because of a lack of pictures. What I'd like to do is instead have an extra color page for our National Meet in the Winter issue.

Martha Stewart and Araucanas

Two of our members, Telah Ferguson and Traci Torres of My Pet Chicken, provided the Aruacana chicks (and others) that Martha Stewart used on her show in April. Here is what Telah had to say about this:

Traci, from My Pet Chicken, is a newer member of the ACA, and she lives in CT like I do. She was looking for eggs, some for her own flock and some for Martha Stewart. She asked Fritz Ludwig about where she could find the eggs and he forwarded her to me. I sold her 25 of my eggs and she said she needed to get someone to incubate all of Martha's eggs. I happen to have a 200+ egg incubator and I told her I would run it for her for a running fee and she could come get the chicks when they hatched out.

http://www.themarthablog.com/2011/04/new-chicks-new-bees-and-more.html

National Meet……...Sponsor an Award

Our 2011 National Meet will be held at the Crossroads of America Show October 28-30.

In the past we have solicited sponsors for awards. We plan on awards valuing $50 for National Champion, Large Fowl and Bantam, and $25 for Reserve National Champion, Large Fowl and Bantam. Also, the club will be providing ribbons for Best of Variety, and several sponsorships are available for $10. I will also sponsor an ACA coffee mug for all who show birds at the Crossroads Show. If you would like to sponsor an award, make checks payable to Araucana Club of America and mail to our Treasurer:

Joyce Ludwig
207 Pickens Dr.
Pendleton, SC 29670

You can get show details at: www.crossroadsofamericapoultryclub.com

Understanding Coccidiosis

by Peter J. Brown, Aka The Chicken Doctor

Coccidiosis is one of the least understood of all Avian Diseases. The key to controlling Coccidiosis is to be on a control program that will keep the disease under control, yet allow sufficient natural immunity to develop. Because the oocysts that cause Coccidiosis are present everywhere, it is virtually impossible to be free of this disease.

Coccidiosis is caused by a Protozoan which is a single celled animal. When the Protozoa multiply in the birds intestine, infection takes place causing intestinal damage. Cells that line the intestine that are used for digestion and conversion of feed into Amino Acids and other nutrients are destroyed by the ever multiplying Coccidia. Some species of Coccidia can and do cause severe damage to the Intestinal lining and therefore make it difficult for the bird to absorb the necessary nutrients to nourish its body.

There are at least nine species of Coccidia known to infect Chickens. Every animal is affected by some species of Coccidia. All species of Coccidia are host specific. This means that Coccidia that are capable of infecting Chickens will not infect Turkeys and vice versa. Five of the nine species of Coccidia that infect Chickens can be very aggressive and cause permanent Intestinal damage if not properly controlled. Each of these species resides in a particular section of the Intestines. *Emeria acervulina* resides in the upper part of the small intestine and is usually found in birds that are eight weeks of age and older. *Emeria necatrix* usually found in the middle areas of the small intestine and is usually responsible for the intestinal bleeding often seen with Coccidiosis and it usually attacks young birds. *Emeria tenella* resides in the Cecal tonsil or blind pouches of the Intestine and usually causes what is call Cecal bloody Coccidiosis and is usually found in birds that are between five to eight weeks of age. *Emeria brunetti* does its damage in the lower small intestine and the Cloaca or rectum of the bird. *Emeria maxima* causes Intestinal damage in the middle to lower portions of the small Intestine.

Coccidiosis is spread by contaminated feed and droppings from infected birds. The infectious oocysts that cause Coccidiosis can be carried by man, litter, contaminated equipment and free flying birds. The main source of infection is the chickens itself. Birds that are infected with Coccidiosis will pass great number of infectious oocysts in their droppings. Even a bird that has recovered from a Coccidiosis outbreak will remain infectious as they are never really free of the disease. The oocysts are capable under the right conditions of surviving in the soil for periods of one year or longer. The oocysts that cause Coccidiosis thrive in wet surrounding and are easier to control if litter and or the ground is in a drier condition. It takes approximately four to seven days for an infection to take place in the intestines. It takes constant re-exposure to the infectious oocysts in order for immunity to Coccidiosis to develop. Immunity is not permanent nor is it guaranteed for the life of the bird. Immunity depends on constant re-exposure to the infectious oocysts, if re-exposure is not accomplished then immunity will be lost. There is no cross immunity among the different species of Coccidia. This means that in order for birds to develop immunity to all nine species of Coccidia

they would have to be exposed to sufficient numbers of oocysts from all nine species. They would then have to be constantly re-exposed to all nine species of Cocci in order for immunity to be maintained. The severity of a Cocci outbreak will depend upon the numbers of oocysts that are ingested by the birds and their overall health and conditioning.

Controlling Coccidiosis and still allowing immunity to build is accomplished in the following way. Use Amprol/Corid powder in the birds drinking water at the rate of one teaspoon per gallon of water for seven days and 1/8 teaspoon of 3-Nitro-W as well. Then skip twenty one days and then begin treating with Sulfadimethoxione at the rate of one ounce per two gallons of drinking water for five days. Then skip twenty one days again and start the treatment all over again beginning with the Amprol/Corid and the 3-Nitro-W powder. Continue this program until all birds are five to six month sold or until the hens begin laying eggs and then discontinue the program and treat on an as needed basis. It is important to start the Amprol/Corid powder first and then use the Sulfadimethoxine as some species of Cocci cause intestinal bleeding and the use of Sulfa drugs first, will contribute to the bleeding before it makes the situation better. It is also advisable to add ¼ teaspoon of VITAMIN E to the water as research shows that VITAMIN E can help shorten the course of a Coccidiosis outbreak. When starting baby chicks it is important to start this program no later than ten days of age as this disease will kill baby chicks very quickly. Newly developed technology has produced a new Coccidiosis vaccine that is both effective, safe and, affordable. It is really simple to use just mix the vaccine according to the directions that are provided with the vaccine and spray the vaccine on the birds feed that you are feeding for the day. Its that simple. If vaccination was done properly the birds will show mild symptoms of Cocci but should not be overwhelmed by the vaccine and immunity will build from there. No medication should be necessary for the life of the birds.

Some of the symptoms that you may observe during an outbreak of Coccidiosis are as follows: Ruffled feathers, droopy or sleepy eyed appearance, birds may drop one of both wings, birds may become lethargic and reluctant to move even when prodded. Some birds may show an uncoordinated gate or appear to stagger of walk as though they are trying to step over something when there is nothing in front of them. Some birds may have a chilled appearance as well. There may or may not be blood in the droppings depending upon the species of Cocci that is affecting the birds. Weight loss as well as loss of appetite and mortality may also be observed.

Just a word of caution when using Sulfa drugs. Never use Sulfa drugs for longer than the suggested period of time. Never use two Sulfa drugs at the same time. Always use the proper dose for the drug being used. Always allow three weeks between the use of different Sulfa drugs, never use them back to back. The overuse of Sulfa drugs can and will if not properly used cause permanent and irreversible KIDNEY DAMAGE and RENAL SHUTDOWN (kidney failure). Use Sulfa drugs with confidence but with a sense of caution. It will be of value to use some 3-Nitro-W in with the Corid/Amprol powder when treating for Cocci. There is a synergistic effect when the two are used together. Synergistic just means that the ability of the Corid/Amprol powder to fight Coccidiosis will improved if the two are used together.

This article is reproduced from The Chicken Doctor (firststatevetsupply.com).

Are Araucana Eggs Less Allergenic?

by Rosalyn Upson

Hen's egg allergy ranks among the most frequent primary food allergies in children. The incidence of egg allergy has increased in the past 60 years, paralleling the increasing use of high performance laying hen hybrids in factory farms.

Recently, eggs from ancient chicken breeds are being promoted as aboriginal alternative to factory farm eggs, and have been touted to be less prone to causing food allergies. This claim is probably related to the interest in organic foods in general and also to the increasing popularity of the "Paleolithic Diet". This reasoning behind this diet is that the modern diet high in grains and domesticated livestock meat has only been around for about 10,000 years since the Agricultural Revolution took place and humans stopped eating the Hunter/Gatherer diet that humans had been adapted to previously. This changeover to the agrarian lifestyle is presumed to be the reason for many of the diseases of modern civilization, such as increased food allergies, diabetes, and obesity. To somewhat over-simplify, removing grains from the diet and eating a diet that is high in game meat, fruit, vegetables and eggs is the foundation of the Paleolithic Diet.
In this scientific paper published last month, the researchers compared the allergic response in children to eggs from conventional laying hen hybrids with those from two ancient chicken breeds, Araucana and Marans. They did not find major dissimilarities regarding IgE reactivity or biological reactivity between eggs from modern and ancient chicken breeds. In fact, egg yolk from Auraucana chicken even showed a slightly elevated allergenic potential.

So yet another myth about Araucana eggs is shown not only to be false, but to be just the opposite of what was thought. Many of you have heard about the myth that Araucana eggs are better for you because they have less cholesterol. Well, several scientific studies have shown that Araucana eggs actually have more cholesterol. Interestingly, Araucana eggs also have a larger yolk in proportion to white. I have seen that when using them in cooking. I wonder if there is something about depositing the blue pigment in the eggs that causes this? Perhaps an altered transit through the oviduct results in less albumin being deposited in the egg?

Below is the abstract of the scientific publication on Araucana eggs and allergies, followed by the one on the cholesterol content of Aruacana eggs.

PLoS One. 2011 Apr 28;6(4):e19062.

Is Aboriginal Food Less Allergenic? Comparing IgE-Reactivity of Eggs from Modern and Ancient Chicken Breeds in a Cohort of Allergic Children.

Hen's egg allergy ranks among the most frequent primary food allergies in children. We aimed to investigate sensitization profiles of egg allergic patients and compare in vitro IgE reactivities of eggs from ancient chicken breeds (Araucana and Marans) with those from conventional laying hen hybrids.

METHODOLOGY:

Egg allergic children were subjected to skin prick test, double blind placebo controlled food challenge, and sensitization profiles to Gal d 1-5 were determined by allergen microarray. IgE binding and biological activity of eggs from different chicken breeds were investigated by immunoblot, ELISA, and mediator release assays.

PRINCIPAL FINDINGS:

We found that Gal d 1 and Gal d 2 are generally major egg allergens, whereas Gal d 3-5 displayed high sensitization prevalence only in patients reacting to both, egg white and yolk. It seems that the onset of egg allergy is mediated by egg white allergens expanding to yolk sensitization in later stages of disease. Of note, egg white/yolk weight ratios were reduced in eggs from Auraucana and Marans chicken. As determined in IgE immunoblots and mass analysis, eggs from ancient chicken breeds did not differ in their protein composition. Similar IgE-binding was observed for all egg white preparations, while an elevated allergenicity was detected in egg yolk from Araucana chicken.

CONCLUSION/SIGNIFICANCE:

Our results on allergenicity and biological activity do not confirm the common assumption that aboriginal food might be less allergenic. Comprehensive diagnosis of egg allergy should distinguish between reactivity to hen's egg white and yolk fractions to avoid unnecessary dietary restrictions to improve life quality of the allergic child and its family.

Br Poult Sci. 2006 Jun;47(3):294-300.

Lipid profile in eggs of Araucana hens compared with Lohmann Selected Leghorn and ISA Brown hens given diets with different fat sources.

Millet S, De Ceulaer K, Van Paemel M, Raes K, De Smet S, Janssens GP.

1. In a cross-over trial, the egg cholesterol and fatty acid composition of Araucana hens was compared with those of two commercial breeds (Lohmann Selected Leghorn and ISA Brown) under two feeding regimes, either high (Hn-3) or low (Ln-3) in long-chain n-3 fatty acids. 2. The Hn-3 diet was formed by isocaloric substitution of animal fat in the control diet (Ln-3) by a dry product containing stabilised fish oil with standardised concentrations of eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). 3. Both breed and diet had influences on egg composition, without interactions. 4. The Araucana breed showed lower feed intake and lower egg weights than the other two breeds. The yolk weight was similar, leading to a much higher yolk:albumen ratio in the Araucana eggs. 5. In comparison to commercial breeds, Araucanas produced eggs with higher cholesterol content per g of yolk, which was even more pronounced when expressed per g of egg, due to the high yolk content of the eggs. The cholesterol content of an egg remained unchanged by the diet, irrespective of the dietary fat source. 6. Changing to the Hn-3 diet led to greater concentrations of polyunsaturated fatty acids (PUFA) and lower concentrations of monounsaturated fatty acids (MUFA) contents in the yolk, without a change in the ratio of saturated (SFA) to unsaturated fatty acids (UFA). 7. Within the PUFA, the n-3 fatty acids increased at the expense of the n-6 fatty acids, indicating a competition between n-3 and n-6 fatty acids for incorporation in the yolk.

Egg Color Questions

Not everyone follows the Forum, and there was an interesting discussion of egg color questions that I thought I'd pull together to review.

Q: I have been comparing my hen's eggs to the Egg Color Chart. I have mostly C's and a couple of B's. How am I supposed to interpret the color card?

A: There are no hard and fast rules when it comes to the exact shade of egg color. My advice would be to strive for whatever suits your own taste. The Egg Color Card was originally put together by Frank Decmar in response to an experience he had trying to purchase blue hatching eggs. What one person thought was a nice blue, he thought was too green a shade for his taste. Color is very subjective, and so he decided to collect eggshells from a lot of different Araucanas and make a card so that someone who lived far away could match up the shell color and he would know exactly what color it was. Of course the Color Chart doesn't take into account the intensity of the color, which can change one's perception too. So look on the chart as a convenient way to communicate egg colors, especially since a photograph on a computer monitor can be different on different machines.

Q: Are the genes for blue and brown egg shell color at different loci?

A: Yes. The blue egg gene (O) deposits the blue/green oocyanin pigment all through the shell. The brown pigment is actually contributed from many different genes and is just a coating on the outside of the shell. So the blue and brown are entirely different genes, and a variety of colors come from various browns overlaid on top of the blue/greens.

The genetics of brown egg color is poorly understood. However, at least 13 different genes have been identified at separate locations on the chromosomes. Some are dominant, some are recessive and some are sex-linked. To my knowledge, none of these genes have been identified or sequenced. Their existence has been proved by test matings. Whether there are different alleles of the same gene that add to the complexity is something I don't know, and that probably hasn't been very thoroughly studied. However, the presence of so many different brown egg genes, some recessive, means that once you cross a pure blue egg-laying bird with a brown egg-laying bird, it's very hard to get the pure blue egshell color back.

The genetics of the blue egg gene are much simpler. It is a single dominant gene called O, and appears to have several alleles responsible for varying shades, although I haven't seen any scientific studies testing this. There might also be separate modifying genes that affect the color, but they haven't been identified and this is just speculation on my part. Once the O gene is identified, then some of these questions will be answered. There is a scientist in China who is trying to clone the gene, Dr. Ning Yang. Our Club is working with him, and has sent him some blood samples of Araucanas provided by Ann Charles and Jocelyn Clarke. He plans to compare our American birds with his native Dongxiang Blue Egg Chickens.

Show Report
by Rosalyn Upson

The spring show season is always slower than the fall because most folks are busy with hatching the next generation of chicks. But there are some shows to report.

The Big Bird Classic was held March 19 in Pine Bluff, AR. Ann Charles is the Show Secretary, and of course was really busy. But she had time to prep a few birds and provide this report:

The Big Bird Classic is behind me for another year and it was a great success with LOTS of new exhibitors and some BIG large fowl classes. The top birds took home top honors, with Will Bryles' black Cochin bantam hen taking Best of Show. Pat Malone was our judge, did a great job as usual, and was a big hit with the exhibitors.

We had two Araucana exhibitors, myself and Drexel Jordan. Putting this show on is my pet project each year and takes a lot of my time. I entered 6 birds but with my work load I only managed the time to clean up three of them in time for the show, and just 2 were Araucana. You all may, or may not know, that Drexel has been fighting non-Hodkins Lymphoma since he was diagnosed with it last year at the same time as our State Fair Show in Little Rock. The good news is that he is currently in remission but he had to wear a face mask, per doctor's order, so that he could come to the show at all. As tired as he was he managed to find the time and energy to help me with the show which amazed me. We all had a great time and it was a fun show with some really nice birds exhibited. I had the only large fowl Araucana entry with my white hen, Shasta, and she was named ***Champion AOSB****. My black bantam pullet, Suzie, was Best of Breed, and* ***Reserve AOCCL****. Drexel's Black bantam pullet was Reserve of Variety, and his Blue Red pullet was Reserve of Breed.*

Ann's "Shasta", Champion AOSB

The Cascadia Spring Show in Monroe, WA on March 19. Cindy Smith posted this report: *"Steve's unbeatable Cock, "Sir Champ", was again Champion AOSB and went on to be* ***Champion Large Fowl****. His son was* ***Res. Ch. AOSB****. My black bantam (who was bred by Steve Waters) was* ***Res. Ch. AOCCL****. There was even a little watery sun! Very nice day in the Northwest."*

The American Poultry Association Semi-Annual Meet was held on April 16 and 17 in Stevenson, WA. Cindy Smith provided this report:

It rained like a son of a gun and I'll bet all those people who voted against having an APA show in Washington because "It always rains," felt very

vindicated. I say with all seriousness that this area, Stevenson, WA, on the Columbia Gorge, with its "Bridge of the Gods" and its waterfalls, lakes, and mountains, is like the land time forgot. It is as beautiful as anywhere in the world or any national park- if you can see it. Well, you couldn't yesterday. Anyway, there were stunning birds here from CA and other mostly Western states that definitely kicked the competition up a notch. Neither of us did anything with our Araucana beyond BB and RB in the youth show and BV for my white cock in the Open Show. Steve's black bantam hen was BB, but she had just been badly pecked by her cage neighbor the night before- as in actively bleeding- so can't have shown her best. Steve Waters' large fowl Araucana all looked great, especially his 4 year old hen, who has always been my all time favorite. She went ***Reserve AOSB*** *to a Sumatra who went on to win the whole show. Interestingly, his white LF cockerel was RB and the old cock (Sir Champ) who has won so much was not placed at all. All in all, a really great day.*

Jean Blancato's "Boaz"

The Sussex County Poultry Fanciers Spring Show was held May 21 in Augusta NJ with 764 birds entered. Jean Blancato's Gold Duckwing Cock "Boaz" was Best of Breed, her Blue Hen "Bluebell" was Reserve of Breed, her Black Hen "Marta" was Best of Variety, her Gold Duckwing Cock "Whispy Friskie" was Reserve of Variety and her Black Hen "Telah" was Reserve of Variety. The birds made a very nice display!

The Southern New England 4-H Poultry show was held May 21, and Telah Ferguson was Best of Breed and **5th in Show** with her black pullet.

Telah Ferguson's black pullet

The Elma, WA Show was held June 4th, and Cindy Smith had this report:

Just got back from Elma on this FABULOUS day- our first warm one in Washington all year. We had a nice little show. Steve Waters' LF hen Lady Champ was ***Champion AOSB*** *and his (unnamed) black bantam hen was* ***Champion AOCCL****. Rob's bantam black hen "Stevie" was* ***Champion of Show in the Youth Division****. Overall, a nice showing by Washington Araucanas.*