

## **NPGA Documentation of Color, Genetics and Animals**

I hope the information presented here will give some insight as to the complicated nature of color genetics. The assertion that we have to go outside the pygmy breed to cross a black and tan pattern to a grey agouti or brown agouti is to ignore the fact that our caramel is, in fact, a black and tan pattern animal of the agouti locus.

Other information here gives background on color and shows that brown has been part of the genetic makeup of our first and most famous seed stock and the patterns produced are not new at all.

Spring 1982 MEMO- Dr. Ralph Bogart

Dr. Bogart is presenting information from the Third International Conference on Goat Production and Disease. Lauvergne of France presented allelic series data for coat color in goats for agouti, brown, extension, roan and spotting. (He then outlines the inheritance factors reported by Lauvergne.)

Bogart then says his meager observations on the agouti series do not agree with those of Lauvergne and asks the members to send him data as follows:

- |                                     | Number |
|-------------------------------------|--------|
| 1. Agouti x Agouti mating           |        |
| i. Agouti                           |        |
| ii. Black                           |        |
| iii. Black & tan                    |        |
| 2. Black x Black mating             |        |
| i. Agouti                           |        |
| ii. Black                           |        |
| iii. Black & tan                    |        |
| 3. Black & tan X Black & tan mating |        |
| i. Agouti                           |        |
| ii. Black                           |        |
| iii. Black & tan                    |        |

“I think what I call black & tan, most of you call caramel.”

## **Winter 1982 MEMO**

Eva Rappaport article on Breed Standard “A Measure of Excellence”

Excerpt “When we sat down together, in December 1974, to draw up the Pygmy goat Breed Standard, the eight of us brought to this task a working knowledge of contemporary Pygmy goats, along with available research data and some general history of dwarf goats in various parts of the world. From this collective input we extracted all those descriptions and data that related to Pygmy goats as found in the USA. In effect, we did a population study of the U.S. Pygmy goat, looking for common traits which could help us define the existing type—taking into account regional differences and variations and ranges of size, color, and body type.”

She goes on to attest to how the standard evolved from discussions and view of seed stock animals into a “systematic description of an ideal Pygmy goat possessing all the traits that typify the breed.”

Rappaport goes on to highlight the usefulness of the Faulting Sheet as a tool to measure departure from the standard. “We should feel free to revise our Faulting Sheet, to elaborate and refine it, to sharpen this tool of ours whenever we think that improved phrasing, more concise wording, or the addition of a mere comma could add clarity or remove ambiguity.”

Notice she does not mention changing the Standard. The Breed Standard was written to include “all those types that were, phenotypically, Pygmy goats”.

#### **Winter 1982 MEMO-**

“An Interview With Ralph Bogart” page 9

This interview gives insight to the thoughts and work of Dr. Ralph Bogart, one of the founding members of NPGA. He served as Professor of Animal Husbandry at Oregon State University in 1947 and later became head of the Genetics Institute in 1964. In his day, he had written numerous textbooks on genetics and animal husbandry. His work at OSU included research with a herd of Pygmy goats along with Dr. James Metcalfe. He was a member of the original certification committee for NPGA which spent 5 years viewing photos and animals that would be approved as the seed stock for NPGA pygmies.

In this interview he expresses concern that extreme cobbiness is being overdone in the breed from what the standard intended, and that longevity of a goat and its ability to deliver and raise its young are “extremely important qualities to breed for.”

The interviewer writes- “When I asked Dr. Bogart if he thought that our Pygmies were a pure line, he responded with his belief that the genetic pool was probably polluted with outcrossing to Spanish goats from the Channel Islands off California. **He feels that this is probably the origin of the caramel color, which is proving to be a dominant trait.**”

#### **4-H Pygmy Goat Project Handbook-copyright 1982 by NPGA**

**Bucks- By Lydia Hale & Lucy Hulse**

“Good breed standard Markings (8 points) on a buck are essential because of his greater influence in a breeding program. Forehead, ears, and muzzle (except in all black bucks) are frosted in a lighter tone than (sic) main body color. Face mask, all socks and dorsal stripe are black, without white spots or other random markings, with the exception of caramel animals which show a typical white vertical stripe on the front of all dark socks. Main body colors range from white to black and gradations of gray. White patches or belting on the barrel are acceptable.”

#### **Winter 1983- Linear Type Appraisal: An Idea Whose Time Has Come For The Pygmy Goat**

David Richard Lincicome, PhD US Dept of Agriculture, BARC-East, Beltsville, MD

Excerpt-“In the show ring, body conformation judgments are wholly comparative and limited to just those animals present.....Such comparative evaluations offer little or nothing of value for genetic improvement of the breed. At best, they provide colored ribbons to adorn a den wall.”

Summer 1986 MEMO-Notes from Central Office (Registrar/Certification Chair)

“This year, all of a sudden, I’m seeing an increase in registration applications where the breeder describes his or her animal as either “brown” or “blue”. ....we have no definition of the color brown. The Breed Standard committee will be considering what color animals are best described as brown and blue, and their recommendation will be discussed at our upcoming board meeting in August.”

(Color choices added option of “Other Agouti” ( see color charts & board actions)

Spring 1991 MEMO-

Page 22 & 23- PGCH Mountain Views Brown Sugar and son also PGCH Raby’s Hillside Acres Rocky, Sire of numerous grey/brn highlights offspring, photos indicate he had markings as well.

Page 43- Yesteryears article by Janet Schager on Brandybuck Thorin, sire of **PGCH Morgan**. Sire of Brandybuck Thorin is Elf Buck.

Fall 1991 MEMO-

Page 34- Yesteryears article by Janet Schager on **Elf Buck**, grandsire to PGCH Morgan. He is described as “one of the more exotic African pygmies in our breed’s heritage.” He was a white caramel with “a complete black mask over his face, black dorsal stripe that went all the way back to his tail, and a black martingale.” We also learn that “his dam had a history of kidding with triplets.” His sire was Metcalfe Buck, last owned by Dr. Metcalf at the University of Oregon Medical School. “Elf Buck’s dam was a ‘chocolate’ doe named **Brownny #339** and also known as Cameroon Crusade Brownny. She was later brought to California as part of the Fresno State University herd. She was a registered AGS pygmy goat, but was turned down for NPGA progeny test because of her lack of breed specific markings.”

Winter 91-92 Page 10

Readers Forum- Question from new breeder on what colors are produced from breeding different colored pygmies together. Editor responds the subject is “quite complex, and all the possible permutations are probably not thoroughly researched. ...NPGA places no restrictions on breeding any registered pygmy to another, regardless of color.”

Numerous show results can be viewed, some with photos of these animals with obvious brown highlights or marking on their face, thighs and/or shoulder area.

NPGA now owns the Pygmy Goat World articles, which include a centerfold feature on Raby’s Hillside Acres in the March 1995 issue. There are photos of **PGCH Mountain Views Brown Sugar(born Jan 1987)** and Mountain Views Cinnamon which show their markings. There are also photos of Cinnamon’s babies, which clearly show the highlights throughout on one baby and then the white caramel sibling standing next to it. Tommy Raby is quoted in the article speaking about PGCH Mountain Views Brown Sugar. “She was one of my favorite goats,” explains Tommy. “I was always real proud of her. She had several babies for us and some were champions. She had a brown streak on the side of her face. Some of the judges didn’t like it but she was a nice doe. We sold many of her babies and now I see little brown faces all over the U.S.”