



## NFQHA Adheres to Breed Standards Cremellos & Perlinos will not be accepted for NFQHA certification.

In 1995 when NFQHA developed their certification criteria (i.e. Breed standard) for Foundation Quarter Horses, NFQHA relied on AQHA registration to eliminate colors that were not part of the NFQHA Breed standard. However, in March 2003, the 63-year-old AQHA rule regarding cremellos and perlinos was changed to allow them to be registered with AQHA.

Aware that AQHA was considering this change, the NFQHA Board of Advisors, (at the 2002 annual meeting) voted not to accept cremellos or perlinos for NFQHA certification in the event that AQHA did in fact change their rule in March of 2003. Pursuant to that decision, and the AQHA rule change, the NFQHA requirements for Certification have been reworded as follows:

**“Horses must be registered with AQHA; carry a minimum of 80% Quarter Horse blood as defined by NFQHA criteria; not carry the HYPP gene; and be a sorrel, black, bay, brown, grullo, chestnut, red roan, blue roan, dun, gray, red dun, bay roan, palomino, or buckskin; (horses possessing all three characteristics of pink skin, blue eyes, and white or crème colored coat are not acceptable).”**

NFQHA has been asked by cremello and perlino owners to explain why NFQHA choose not to follow the AQHA example and accept these horses for NFQHA certification. To fully understand one must first understand the differences between AQHA and NFQHA. AQHA is the largest horse association in the world, and, as such, represents a huge and diverse membership. This membership is interested in a wide variety of disciplines and types of American Quarter Horses, ranging from 17 hand hunter/jumpers to 14 hand cutters.

Conversely, NFQHA only represents the Foundation Quarter Horse. The Foundation Quarter Horse is a specific type as described by Robert Denhardt in 1940, and is a breed famous for its' durability, and hardiness, as well as temperament and versatility.

A Breed is a group of individuals that share common characteristics that differentiate them from others of their species. Color is one of these characteristics. Breed associations, whether dog, cat, or horse, etc., normally have a list of colors that are acceptable to gain registration with that association. If an animal is not one of those acceptable colors it may not be registered with that particular breed association regardless of its pedigree, or its conformation.

For instance, one would not expect AKC to register a blue merle Doberman Pincer, nor the Cat Fanciers Association to register a tabby Siamese, nor NFQHA to certify an Appaloosa, no matter how wonderful their pedigrees or conformation. These types of Breed restrictions are important to maintain Breed Type and Breed Recognition.

When a color contributes to health problems\* (see below) these standards become even more important, especially in a breed famous for its durability and hardiness. NFQHA has always agreed with the rule against accepting horses that possess pink skin, blue eyes, and crème coat, based on the fact these horses have more sensitive skin and eyes, and that they are so unusual they look like a separate and different breed.

The feasibility of a creating a breeding-stock-only division of NFQHA for horses that meet the certification percentage requirements, (but not the color requirements), will be taken under advisement by the NFQHA Board of Advisors at their 2003 annual meeting. Also, in anticipation that AQHA may continue to increase allowable white markings or to register

paint crop-outs from two registered AQHA parents in the future, the NFQHA Board of Advisors will draft maximum white markings rules at the 2003 annual meeting.

NFQHA understands that many of these horses possess Foundation Quarter Horse Blood and is happy to conduct the Foundation research to be used by the owner in advertising and breed program planning.

In closing, NFQHA is in no way passing judgement on the quality of any horse that does not meet the NFQHA Breed color standards, it is simply saying they are 'a horse of a different color'.

## HEALTH PROBLEMS ASSOCIATED WITH PINK SKIN AND BLUE EYES

The following excerpts are taken from highly acclaimed Equine Research Publications:

### Photosensitization

'Only areas with underlying unpigmented skin are affected because these areas lack protective pigment. Phototsensitization is not simply sunburn.' *page 361 Equine Genetics & Selections Procedures*

'.....In other words, dominant white, Appaloosa, tobiano, overo, and the lightly pigmented cremello or perlino horses are more prone to this disorder.' *page 363 The Illustrated Veterinary Encyclopedia for Horsemen*



'The principal signs of this disorder are skin lesions that are carefully limited to unpigmented areas of the body that have been exposed to sunlight. They occur mainly on the muzzle, nostrils (blue nose), eyelids and face but follow the white hair pattern on painted or spotted horses. These lesions are characterized by redness, swelling and a great deal of itching. Infections may occur, followed by necrosis and sloughing of considerable areas of skin.' *page 387 The Illustrated Veterinary Encyclopedia For Horsemen*



### Squamous Cell Carcinoma

'Squamous cell carcinoma is a cancer of one of the skin layers ..... It most frequently affects horses with white markings, particularly those with white marking around the eyes and nose. Since white markings and white coat color are inherited, the tendency of those horses to develop squamous cell carcinoma is also considered hereditary.' *page 362 Veterinary Treatments & Medications for Horsemen*

### Eye Problems

'Pigment granules in the iris (the part of the eye surrounding the pupil) give the equine eye its color, and increase its efficiency by partially restricting the amount of light that enters the eye. This helps explain why blue-eyed horses are light sensitive. Since they lack much of the necessary pigment, light entering their eyes is much less restricted.' *page 242 Equine Genetics & Selection Procedures*

## WHAT IS A CREMELLO OR PERLINO?

Cremellos and perlinos are created when they inherit two palomino (crème) dilution genes - one from each parent. The result is a horse that has blue eyes, crème coat, and pink skin; and, in the case of a perlino, extremely faint blue or red points.

### HOW DO YOU KNOW IF A HORSE CARRIES THE PALOMINO DILUTION GENE?

Any horse that possesses only a single palomino gene, will have a diluted coat, which would make it easy to identify those that carry the gene (buckskins & palominos) – EXCEPT – the gene may be combined with the dun dilution gene, which in effect hides the palomino dilution gene. To further confuse the issue occasionally a black horse will carry the gene and not express it.

Therefore, a palomino, or buckskin horse will *always* carry the palomino gene, but a black or dun horse with a palomino or buckskin in their pedigree may, or may not, have inherited the gene. This scenario makes it impossible to know if a dun or black horse possesses the gene until they produce a palomino (or cremello), or until they have produced a significant number of offspring without producing a dilute, which may be hard to achieve in the case of mares.

**THE GOOD NEWS:** there is now a genetic test available to see if a horse carries the crème gene. U.C. Davis forms available at: [www.vgl.ucdavis.edu/](http://www.vgl.ucdavis.edu/) or call 530-752-2211

Horses with the palomino gene may be bred to solid color horses without fear of producing a perlino or cremello. However, when two diluted horses are bred they will produce cremellos or perlinos 25% of the time. Therefore if you know your horse carries the palomino dilution gene you are safe to breed that horse to bays, browns, sorrels, etc., but if you desire to breed to a black or a dun, and are unsure if it carries the palomino gene it is advised to test for the gene.

'Iris Cysts - 'Researchers suggested that lightly pigmented eyes (e.g., blue, heterochromic, etc.) may be more susceptible to cyst formation.' *page 351 Equine Genetics & Selection Procedures*

### **Durability**

Dr. Ben K. Green, Veterinarian, conducted extensive research into the color of horses, including which colors were more durable and stood up to hard use. The following are excerpts from his book *The Color of Horses*.

'Dilutes are undesirable colors in a horse intended for useful purposes. The pigment-producing glands are far less active and produce so little pigment that the three top layers of the hide do not have sufficient pigmentation to be properly resistant to heat, sunlight and pressure. The lack of pigment in the hide keeps the hair from picking up enough pigment for the production of a good useful color. This is further affected by the fact that the opening of the follicle going into the shaft of the hair on dilute colors is so small that what pigment is available cannot enter into the shaft of the hair in a pattern dense enough to properly protect the already deficiently pigmented hide.' *page 115*

'...I learned that the white foot story was still true and began to notice that the white hide of a spotted horse if under the saddle or the cinch was quicker to skin and scald from sweat and heat than the dark hide of the same horse. I also began to know from observing my horses and those belonging to other riders that blistered faces and irritated eyes were common to bald-faced horses in cases where the white extended out over the eyes. White hair has no refraction of light qualities and does not afford pink skin under it any protection, and the absorption of extreme heat reflects and irritates white hide, whereas the dark hair of a dark hide refracts the sun rays and deflects those damaging effect to the extent that no harm is done to the more durable dark hide.'" *page 2*

'It was also evident that the darker shades had better feet, better reflective qualities in the hair around their eyes and were less subject to scalding and chafing by saddles and cinches. *page 3*

'After splitting some four thousand hairs during my years of research, I have excellent proof in my records as to the density or lack of density and the arrangement of the amber pigment particles that refract the light and reflect various colors and shades.' *page 10*