

The Golden Horse

Facts and fiction regarding the western Palomino

A. Mack Scott, '43

THE name Palomino, so one story goes, probably comes from Juan Palomino, a cabellero who in the latter part of the eighteenth century rode a golden colored stallion in the de Anza party out from Mexico across the Colorado desert, over the Sierra Nevada ranges into the great valley of San Francisco to colonize this region for Spain.

Another story is told of the first application of the name, Palomino, to this horse. It is said that Don Estaban, cattle foreman of the Santa Barbara Mission about 1800, wanted the finest horse in the land, and so he offered a reward to the Indians for an outstanding colt. A colt was brought to him with a white mane and tail, and a yellow brown coat covered with chaff from the threshing floor. "*Que Palomino?*" said the Don Estaban, contemptuous of the dirty animal. However, after the colt was washed and groomed, the coat shone like burnished gold and the mane and tail were silvery white. The colt then fulfilled Don Estaban's wish of having the most beautiful horse in the land.

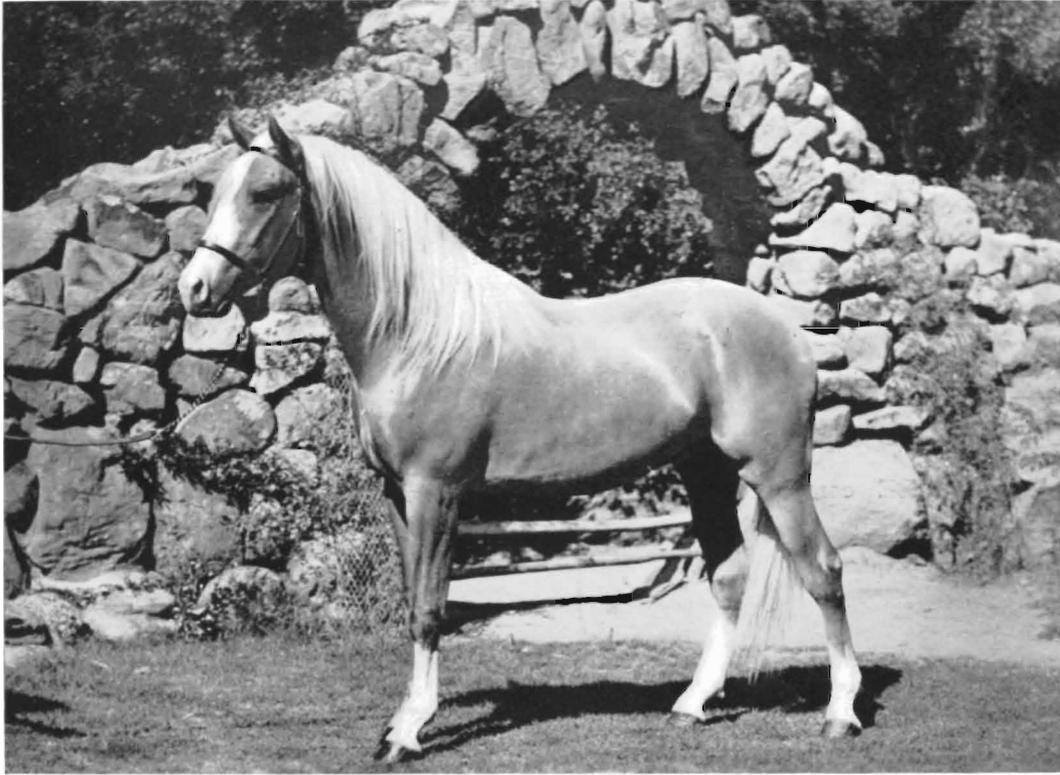
Origin

The exact origin of this horse is unknown. The color has long been known, having been mentioned in ancient history. Dick Halliday, secretary of the Palomino Horse Association, states that he believes this breed to be a forerunner to the Arabian horse and not an offshoot from it. His assumptions are based on records showing that this color was quite common early; but, due to the easily detected color, it met with disfavor among the warriors

and so was replaced by bays and blacks. Halliday goes on to say that the Spanish accepted this color, however, and were proud of every one of the golden horses that they had in their possession. Queen Isabella reportedly sent a Palomino stallion and five mares to Mexico. From this nucleus, Palominos are thought to have spread across the southwest. Halliday thinks that he has traced the color back to Chaldee, an ancient Semetic tribe which was dominant in Babylonia. Unfortunately, the professor doing this investigation was a Pole, and when Poland was invaded both the professor and his records were lost.

The Spaniards in the southwest greatly influenced the further development and propagation of this breed. During the nineteenth century, horses in California were common and very inexpensive. Everybody rode horses; and, because much of their life centered around the horse, the Californians were among the best horsemen in the world, some observers even ranking them over the Cossacks of Tartary. They were particularly fond of well marked, flashy horses which were so highly prized that they could not be sold, only being given away as valuable gifts.

The Spaniards preferred to leave the horse in its natural state and never clipped, docked, stabled, or shod their horses. This principle is continued in part by the Palomino Breeders Association, which rules against docking, tail-setting, and roached manes. The southwest, having been greatly influenced by the Spaniards, accepted the Palomino color readily.



A Palomino at Rancho San Fernando Rey

Not only have stockmen bred for this color, but also for added stamina and speed.

The Palomino Horse Association and Stud Book Registry was founded in 1927, and in that year the first official year-book was issued. Dick Halliday, as secretary with offices in Ojai, California, is to a large part responsible for the promotion of this breed association.

Three Types

The association recognizes three types of Palomino. The first type is the Palomino who has a golden coat with white or ivory mane and tail and with dark hoofs being preferred. The second type is the Palomino-Pintado who has the same general shade of coat as the first, but is marked by white spots over the body. Only mares and geldings are eligible for registry in this class. The third type is

the Palomillo who has a lighter, cream colored coat, and white mane and tail. The Palomillo is at the bottom of the list of color preferences. In addition to forbidding the practices of docking, tail-setting, and roaching of manes, the association rules against the use of English saddles and artificial gaits when the horses are shown. It is also preferred that the mane be trained to fall to the left side in true stock horse fashion.

Dick Murphy, who owns the Rancho San Fernando Rey in Santa Ynez Valley, California, has reportedly invested approximately a million dollars in setting the Palomino strain. At the present, Murphy has three great stallions, one of these being El Rey de los Reyes, the first stallion to be registered in the stud book, and thirty excellent brood mares.

At Murphy's ranch, each stallion has a

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CRYSTAL-VIOLET

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In all, 841 hogs from 222 farm herds treated with vaccine prepared by the above-described method have been subjected to immunity tests. A number of these hogs were treated by procedures which would not be considered good practice in the light of present knowledge. Approximately 83 percent either remained normal or showed only a slight reaction, 12 percent showed severe reactions and 5 percent died.

Included in the foregoing tests were market hogs that had been treated with vaccine before weaning. As will be discussed later in detail, it was found that unweaned pigs, particularly those farrowed by immune mothers, were not well protected by the vaccine. Confining the summary to pigs vaccinated when 10 weeks of age or over and tested by virus injection within the following 8 months, 89 percent were found adequately protected and only 1 percent died.

The fact that the hogs in the group which exhibited severe reactions recovered and a number of those in the group which succumbed died from causes other than hog cholera would indicate that considerably more than 83 percent of all farm hogs that were subjected to immunity tests had received some protection from the vaccine treatment.

Duration of Immunity

While the duration of immunity following treatment with crystal-violet vaccine has not, as yet, been definitely established, the vaccine seems to protect swine against cholera quite well through the fattening period, provided they have not been treated when under eight or ten weeks of age.

Vaccine Treatment of Pigs Nursing Non-Immune and Immune Sows

The observation was made in the course of earlier experiments with crystal-violet vaccine that there was a distinct interference in the antigenic action of the vac-

cine when anti-hog-cholera serum is given at the same time as or shortly after the vaccine. The passive immunity from the serum evidently interfered with the usual antigenic action of the vaccine.

With a view to determining whether a similar interference might occur when the vaccine was given to pigs nursing immune sows, an experiment was carried out at the Bureau Station in which a group of little pigs nursing non-immune sows and another group nursing immune sows were treated with crystal-violet vaccine and later exposed by virus injection with a very striking difference in results. The protection afforded the first group was 100 percent and in the second group only 61.5 percent. This would indicate that the natal immunity in pigs nursing immune sows interferes with the antigenic action of the vaccine in a similar manner that was noted in the experiments where anti-hog-cholera serum was given in conjunction with the vaccine or shortly thereafter.

Tests in Cooperation with Practicing Veterinarians

In the spring of 1940 arrangements were made for the distribution of the vaccine through Government channels to veterinarians in various parts of the country in order that the new product could be tried out in the hands of practitioners and results compared with those obtained in farm tests around Ames. Vaccine has been distributed to veterinarians in Iowa and a number of other states. This project is being continued as well as other experimental work with various phases of crystal-violet vaccine.

PALOMINO

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separate room with running water, electric lights, and with a thick layer of straw on the floor. Every morning, each stallion is walked, trotted, and galloped for ten miles, and when lathery is allowed to roll in fine beach sand which helps maintain

The Case of RED HEART NAN



What Has Gone Before:

Red Heart Nan, perky Wire-haired, is whelped Sept. 30, 1937. Two months later—tipping scales at 5 lb. 4 oz.—she arrives at Red Heart Kennels and is put on diet of Red Heart meal and milk. A month later she is placed on kibbled Red Heart Dog Biscuits and water. Nan has never since varied from this sound, *basic* diet!



LOOK AT NAN TODAY! 18 lb. 12 oz. of energy, Nan measures up favorably to standards for her breed. Says Michael von Motzeck, supervisor, Red Heart Kennels: "Nan is in top condition! Her coat is wonderful . . . her eyes are bright . . . her teeth and bones are strong . . . and she has a world of pep. She has never had anything physically wrong with her!"

... There's No Great Mystery about It!

Red Heart Nan's "success" can be attributed to the well-balanced, nutritive value of Red Heart Dog Biscuits. This *basic* food is made from wholesome ingredients . . . including meat and bone scraps, marrow meat and bone, fresh meat, dry

skimmed milk, fresh egg yolk, malt, and wheat germ.

Feed Red Heart Dog Biscuits as a *base* in ration formulas. Available in 25-, 50-, and 100-lb. bags; 11-oz. cartons; 28-oz. Cellophane bags. Each package contains 3 *delicious flavors*—beef, fish, and cheese.



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the brilliance of his coat. This is followed by a shower and a special shampoo for the mane and tail. On special parade days, the manes and tails are waved.

The Palomino breed is not well established, and the color breeds true only 50 percent of the time. Arabians and Thoroughbreds are being used in the developments of the breed, as are the Morgans and the American Saddlehorse. The mating of two Palominos often results in a bleached color or albanism. This makes it necessary to mate Palomino stallions to self-colored chestnut or sorrel mares, which results in a more consistent progeny of the desired color. The Palomino color develops from a cream color at birth to a fixed shade of the desired golden color at two years of age. Sometimes the color is not fixed at this age and so may change into a deeper copper color.

It is generally agreed that the Palomino horse is heterozygous for at least one pair of color genes. Salisbury and Butler state that through study they have concluded that the Palomino color is "produced by an incompletely dominant dilution gene super-imposed over basic chestnut or sorrel color." The dilution gene varies the degree of sorrel pigment which results in the desired Palomino color. Salisbury and Butler also state that unidentified genes and gene interactions play a responsible part in the color production.

The Palomino horse is today becoming a favorite American pleasure horse. Especially is this so in the southwest, where almost every public exposition features Palominos. The annual Rose Bowl parade is headed by smart stepping Palominos. At the colorful Old Spanish Fiesta Days which are held every year at Santa Barbara, California, the best Palominos in the southwest are present to lend their color to the festival. Abilene, Texas, holds an All-Palomino show every October. But more important than just leading a parade or adding color to a festival, the Palomino with his shining golden coat and his flowing silver mane and tail is making it possible for many proud owners to fulfill their wish of having "the most beautiful horse in the land."

FOWL LEUKOSIS

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neurolymphomatosis. It was etiologically interpreted by him as a sequence to a primary non-specific infection with bacterial organisms of the genus salmonella. Butler, Warren, and Hammersland²⁶ reported that much fowl paralysis was due to an enteritis reduced by dietary changes of Vitamin E deficiency. They reported recovery of many affected birds by feeding or injection of wheat germ oil. This etiological theory was disproven by Jung-hur²⁷ and others.

Patterson and his co-workers²⁸, 1931, concluded from their experimental work that erythroleukosis, myeloid leukosis, lymphomatosis, iritis, and neurolymphomatosis gallinarum were one disease with a common etiological agent which was a filterable virus. Lee, Wilcke, and Murray²⁹⁻³¹, 1937-39, have held the same unitarian idea.

Johnson and Bell³², 1936, in filtration experiments proved quite conclusively that bacteria were not etiological factors and that the disease was due to a filterable virus. They were unable to separate two or more filterable agents on the basis of size particles as factors in the etiology of the various forms of leukosis. They conclude that the various manifestations are due to a single agent whose size lies between limits 400 to 100 millimicrons or less.

Lee and Wilcke³³ in 1939 subjected the etiologic agent to electrophoresis in an attempt to dissociate the virus. Their observations show that migration takes place toward the negative pole from pH values 4.01 to 6.01. The shift occurs to the positive pole at pH 7.01, with the isoelectropoint being between 6.01 and 7.01. Later unpublished work shows it to be between pH 6.5 and 7. The behavior of the material to electrophoresis is so like that of a virus that there seems but little doubt that this disease is due to filterable virus.

Durant and his co-workers³⁴ have been able to transmit fowl paralysis to susceptible chicks from blood of 2 day old and