

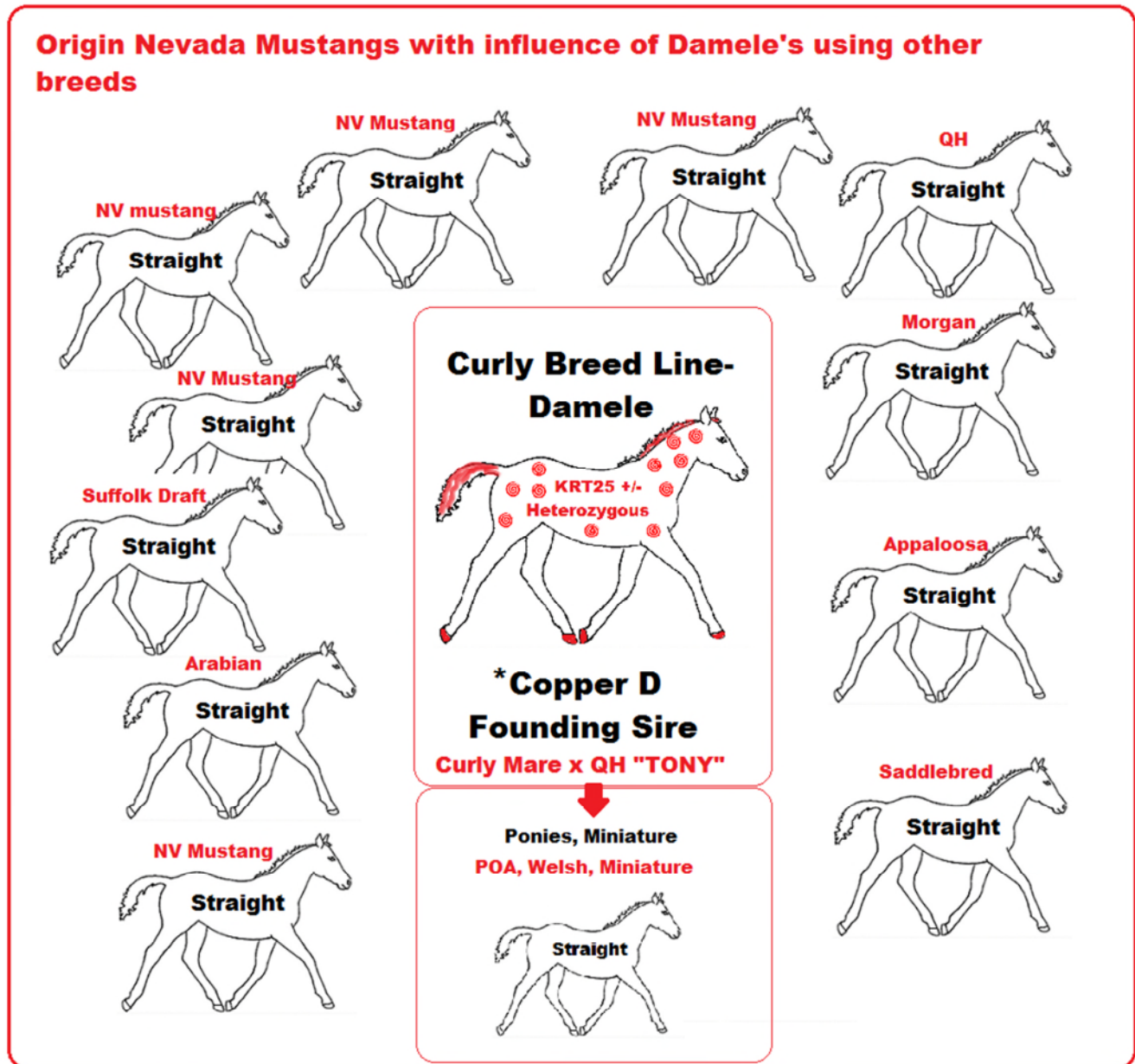
The ICHO Curly Horse Preservation Association Mission Statement:

Identify and preserve unique original Curly Horse types/lines in the North American Curly Horse Population so as not to lose origin genetics and coat genes. Curly horses that qualify will receive a certificate stamp at the time of ICHO registration or a card with stamp for those already ICHO registered.



The known Curly Breed Lines eligible for Preservation Full Lineage status that are of one Curly Breed Line without being mixed with other Curly lines are:

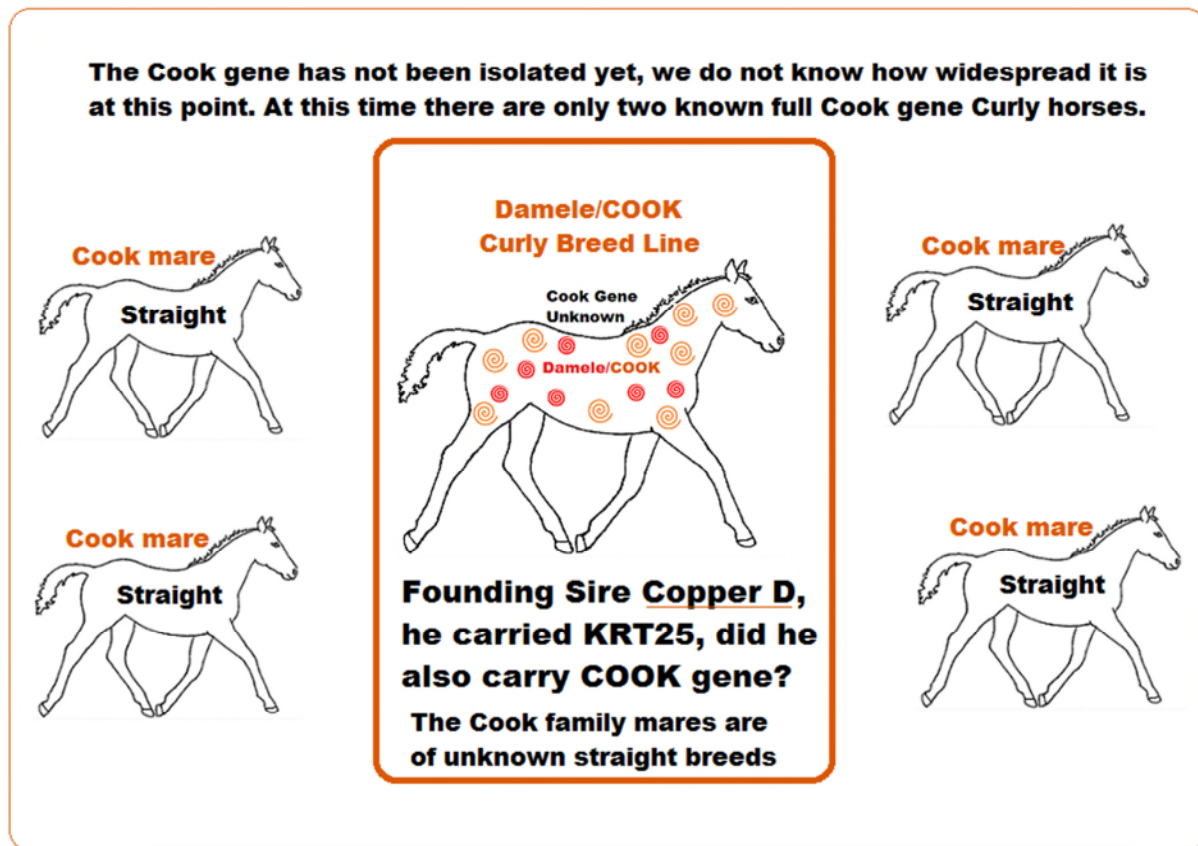
Damele -Coat gene KRT25 and unknown Curly gene (a) Foundation sire Copper D, foundation breeds used by the Damele's were~ QH, Morgan, Arabian, Saddlebred, Appaloosa, Suffolk Draft. Damele horses are almost identically related to the Fish Creek NV Mustang herd. Founding sire Copper D (Damele Curly mare x QH Tony)



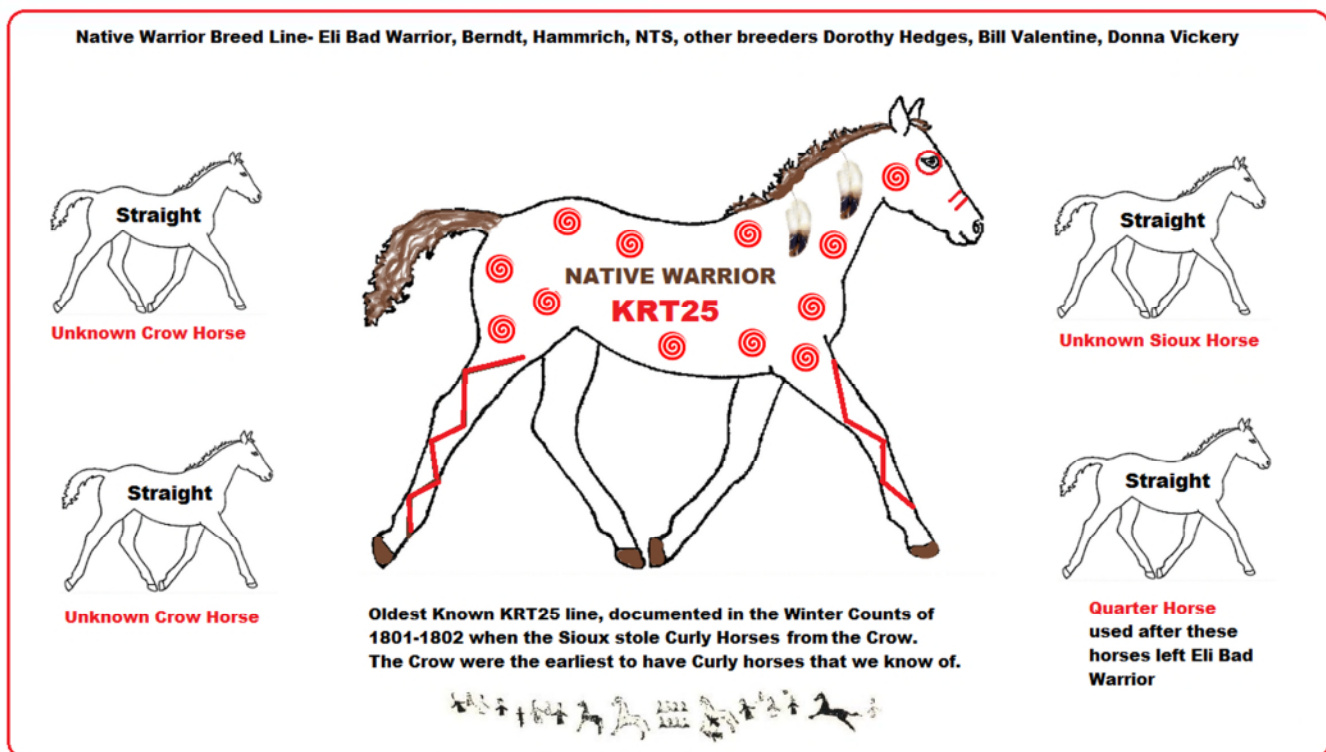
Damele Curly Pony/Miniature- KRT25 (Bancroft) The Ebony Twist line of Damele horses crossed with Miniature horses.

Nevada Curly Mustangs KRT25 and an Unknown Coat Coat gene, origin of Damele Curly horses from Fish Creek, NV.

Damele/COOK Unknown Coat Gene, Foundation sire is Copper D bred to Cook mares, Cook mares are unknown.

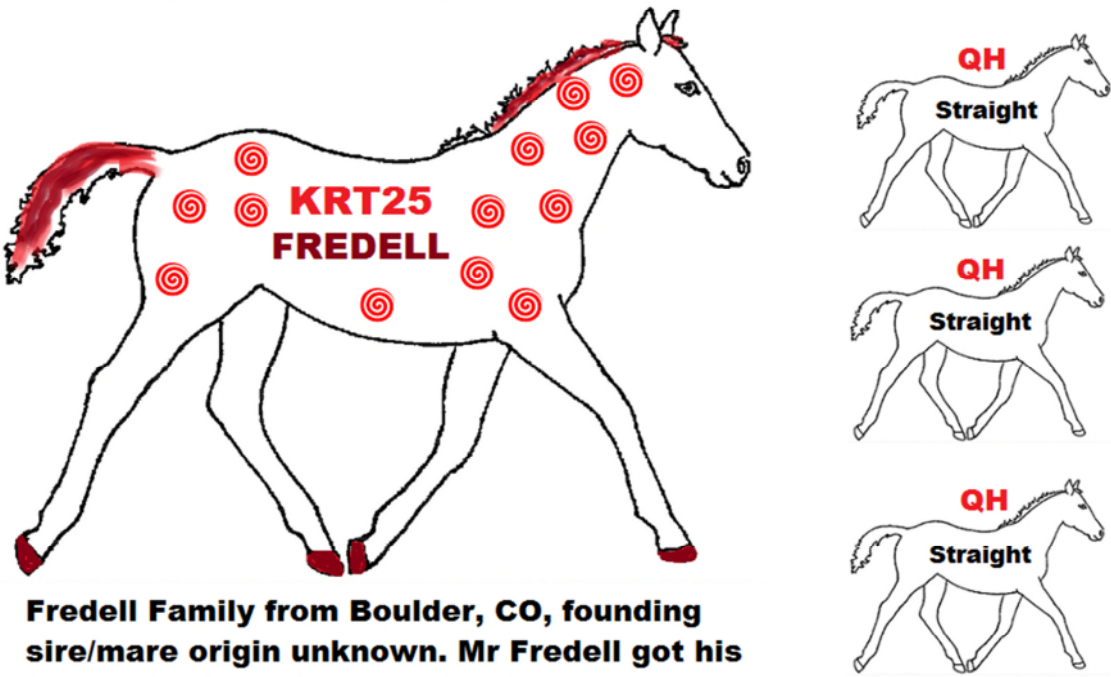


Native/Warrior (Eli Bad Warrior/Berndt/Hammrich/NTS) Coat gene KRT25 from Eli Bad Warrior Native horses of Cheyenne River Sioux Reservation heavily bred to old type QH.



Fredell Coat Gene KRT25 unknown original Curly line heavily bred to QH's. Fredell's said this line is up to 75-90% QH.

Fredell Curly Horses were 75-90% QH



KRT25 FREDELL

QH Straight

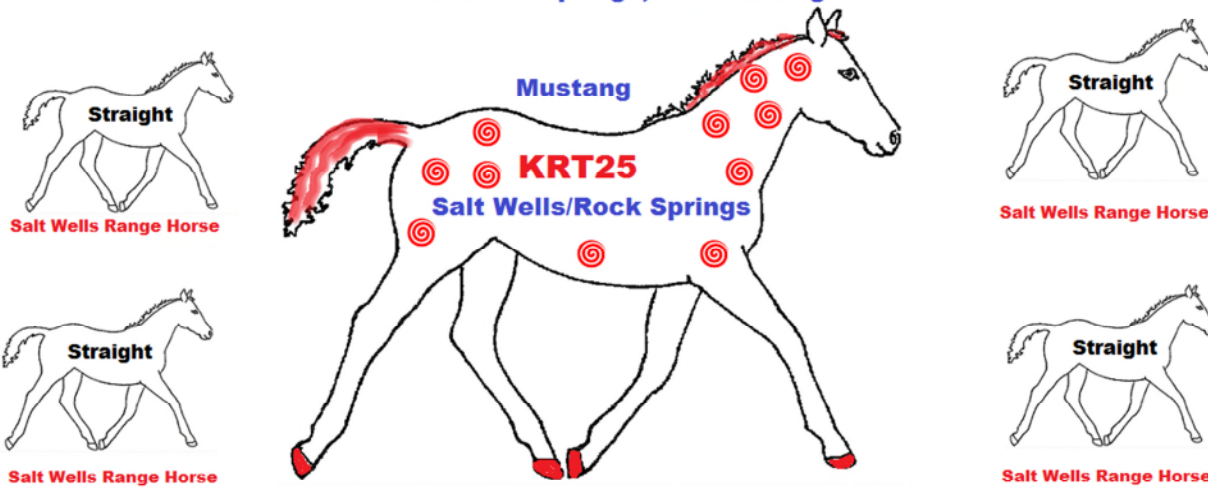
QH Straight

QH Straight

Fredell Family from Boulder, CO, founding sire/mare origin unknown. Mr Fredell got his Curly from his father who bred Curly Horses. Mrs Fredell bred them to Quarter Horses.

WY Salt Wells/Rock Springs Mustang Coat Gene KRT25, Foundation sire Laramie Stud and son Rocket.

Salt Wells/ Rock Springs, WY Mustang



Mustang KRT25 Salt Wells/Rock Springs

Straight
Salt Wells Range Horse

Straight
Salt Wells Range Horse

Straight
Salt Wells Range Horse

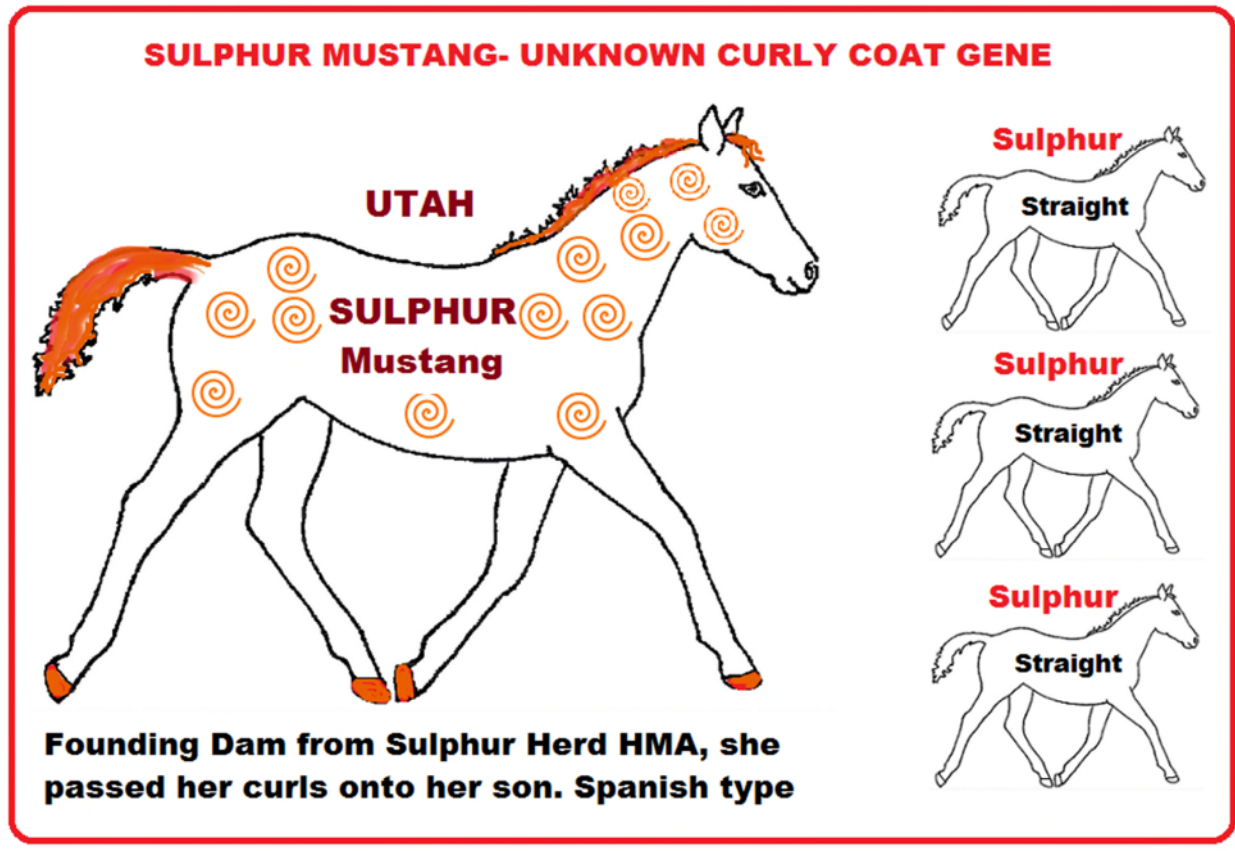
Straight
Salt Wells Range Horse

Founding Curly Sire Laramie Stud acquired 1942-1945 from Laramie, WY. His son Rocket sired many Curly horses in the WY area, these were ranch horses that ran on free range in the Salt Well/Rock Springs, WY area that is now a BLM HMA.

Original breeds included Ranch horses, Morgan, Army Remount Thoroughbreds, Standardbred, Belgian Draft, Tennessee Walker's.

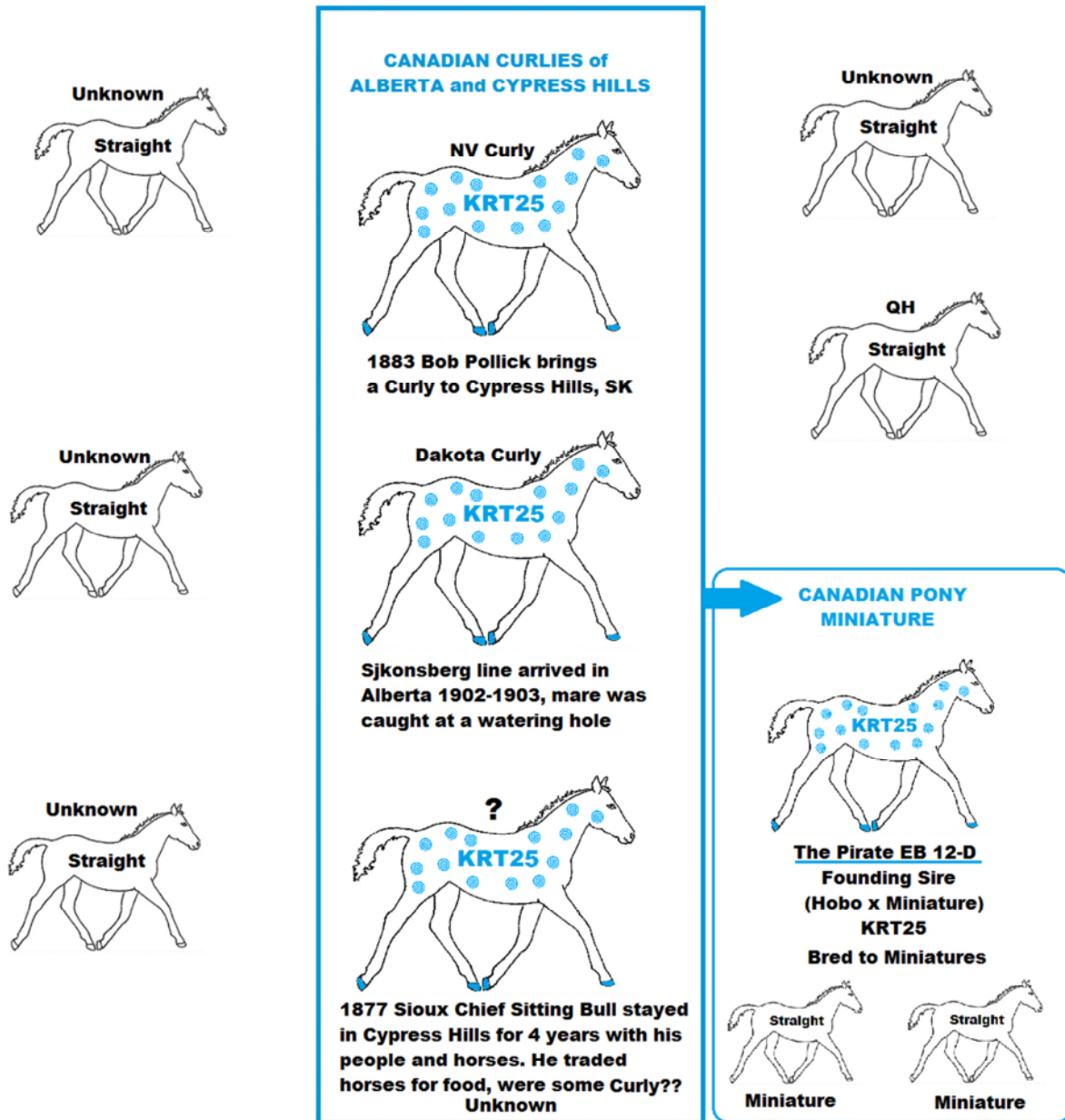
Sulphur Curly Mustangs Unknown Curly Coat gene, very rarely found in the Sulphur Mustangs, possible new mutation.

Breed to other Sulphur mustangs or Spanish breeds.



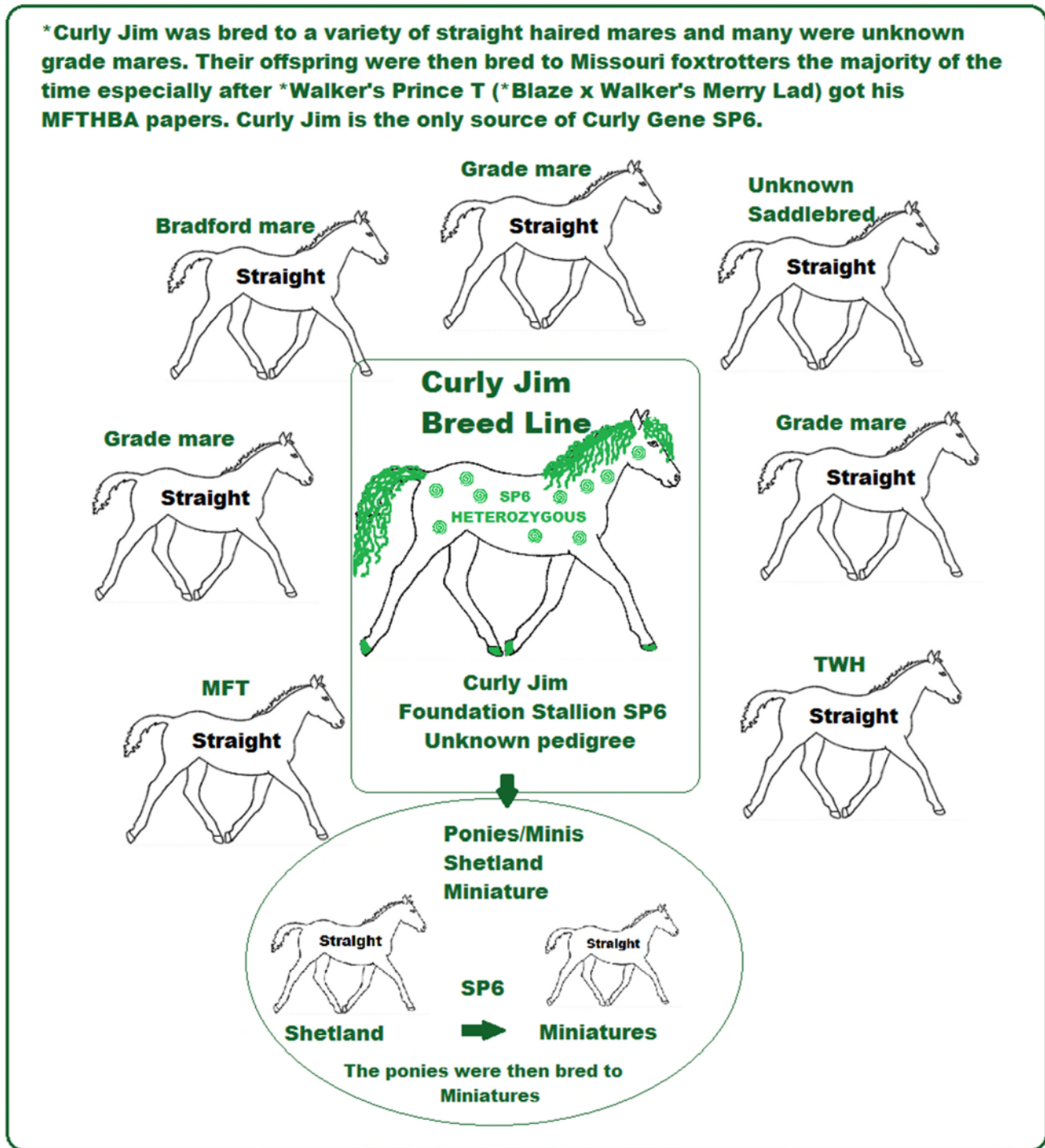
Canadian Curly Coat Gene KRT25, origin could be a captured Curly from NV 1880's and a captured Curly from SD 1900's taken to Canada, and could be wild Curly horses found in Alberta, Cypress Springs region where Sitting Bull (Sioux) and White Bird of Nez Perce camped during late 1800'S as well. This group is being genetic tested and PCoA graphed to see if they are their own type or a sub type.

The Background breeds of the Alberta and Cypress Hills horses are unknown except for the using of QH's in later years to breed with the Curly horses.



Canadian Curly Pony/Mini (Bancroft) KRT25 Founding sire Hobo and son The Pirate who goes back to Roy Olepeter and full line Canadian Curly crossed with American Miniature Horses.

Curly Jim MFT Coat gene SP6, Founding sire Curly Jim (unknown) the majority were bred to Missouri Fox Trotter's.

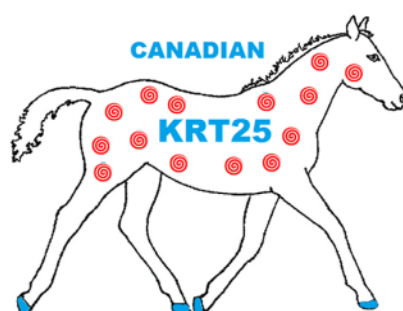


Curly Jim Pony/Mini (McKay/Circle B) Coat gene SP6 Curly Jim and Walker's Prince T line of ponies bred to Shetlands, Miniatures. Some bred to Welsh and POA for a larger sized pony.

**Under investigation: Aishihik-* Joe Mead line of Curlies. This line is said to be from a Curly Yukon horse Joe acquired while in Alaska. Joe bred this line to original Appaloosa horses that trace back to Sam Fisher, a Palouse Native American who bred quality Palouse horses. Genetic tests and PCoA graphs will be done to see how this line compares to the other Curly lines. They are also mixed with Damele, so it is unknown how they will test and if they are their own type or sub type of Damele. The most common sire is Yellow Hornet (Damele x Aishihik/Appaloosa) in this line. There is no Aishihik only line anymore, but the one line we are testing is the linebred Yellow Hornet horses. Coat Gene is KRT25.


To Preserve a Full Lineage Curly line, breeding's should be done to keep the Curly line the same and not mixed with other Curly lines. Other breeds unique to that line should also be used for breeding. Example- Curly Jim MFT should breed to other Curly or Smooth Coat Curly Jim MFT and other straight MFT's to keep this line true to breed type and Coat gene type SP6.

CURLY BREED LINES- Known Coat Genes KRT25 and SP6




CANADIAN
KRT25

AB/Cypress Hills/SK

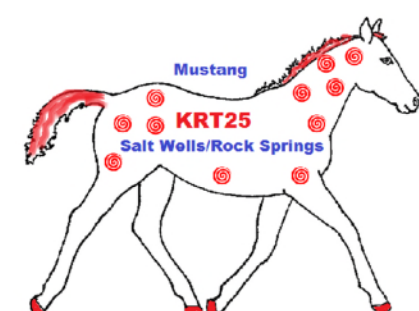


CANADIAN Pony Miniature
KRT25



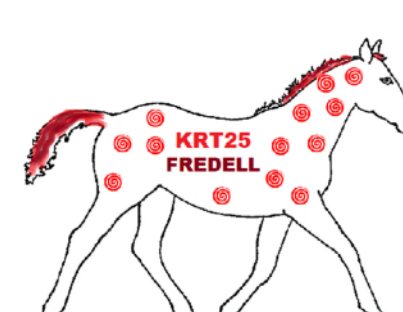
Native Warrior
KRT25

North/South Dakota



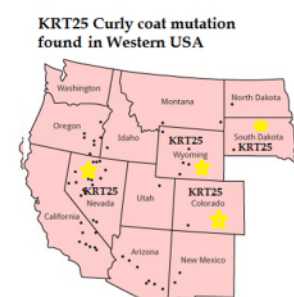
Mustang
KRT25
Salt Wells/Rock Springs

Wyoming Mustang

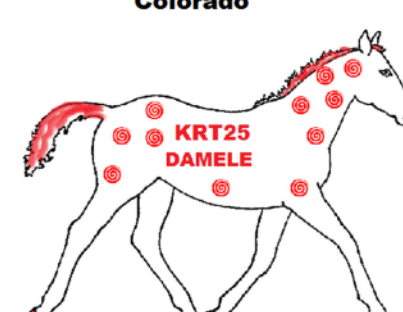


KRT25 FREDELL

Colorado

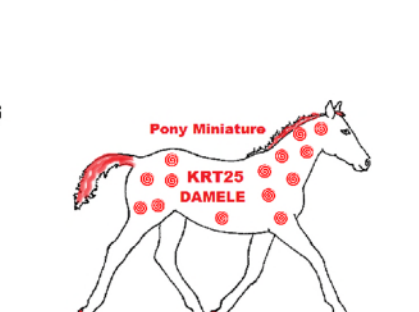


KRT25 Curly coat mutation found in Western USA

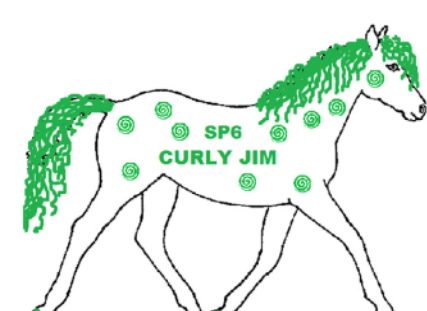


KRT25 DAMELE

Nevada
Fish Creek Mustang

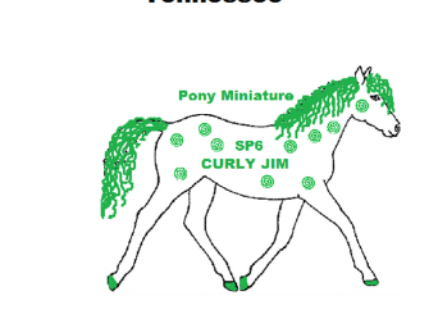


Pony Miniature
KRT25 DAMELE




SP6 CURLY JIM

Tennessee



Pony Miniature
SP6 CURLY JIM

Eastern USA
SP6 Curly Jim



Tennessee

A Curly Breed Line has an Origin/ Pedigree and a Coat Gene that matches the Origin/Pedigree

Why should we preserve the original Curly types?

With genetic testing research by Dr Mitch Wilkinson (ICHO Research Dept) and Dr Gus Cothran of TX A&M, the grouping of these horses genetically has shown that each Curly Line is distinct from each other. A Curly from Fish Creek NV HMA (Damele) is a distinct breed Line compared to a Salt Wells/Rock Springs WY HMA Curly, who is also their own Breed Line. The Curly Jim line Curly is also distinct from other lines of Curly horses. It is showing us that yes the Curly horse does have Breed Lines that are not related to each other and should be bred separately. In nature only 7-10 % of the horse herd is Curly coated if there is a Curly coat gene in the group and is a trait that is passed on. These Breed Lines contain Curly Coats and Smooth Coats, they are of the same herd and Breed Line.

The Preservation Association keeps these Curly Breed Lines in their own Preservation Curly breed division with a Preservation Seal attached to the Registration certificate. This gives breeders and owners the opportunity to know who their Curly horse actually is and the best breeding choices to make for the Curly Breed Line they are. This is our goal to preserve these original Curly horses to their breed line status as unique Curly Breed Lines. Sadly many types are in danger of being lost forever. The Fredell line is about extinct as is the Cook line with its own unique coat gene. The Native/Warrior line horses are almost extinct as well. The Native/Warrior horses have been mixed with Damele and other lines and are now almost gone.

Curly Blends- The Curly Horse population around the world has been mixed and bred to each other for many years. The result is that the majority of Curly horses are now of mixed breed lines. The thought that Curly Coat x Curly Coat was making a breed was not valid. We now know this is false because our original lines were already a Curly breed with their own coat gene for curls and unique ancestry. By mixing them all together, the breed ended up with a mixed Curly who lost its original breed line. These mixed Curly groups will not be breeds but Breed Blends. The coat genes have mixed as well and since we have an unknown balding gene in the mix, it is making breeding a guessing game especially Curly x Curly. When the balding gene (Unknown Gene (a)) is identified, it will help us all make better breeding choices. The fact that most all of us have Curly Blends, gives rise to the question, what do we do now? For owning a Curly, Curly blends are wonderful horses and make fine companions and athletes. They are part of the Curly population now. You can breed Curly Blends to other Curly Blends. But we can work toward preserving the original lines of Curly while we still can.

If you are a breeder, look at your breeding horses and find out if you have any Curly horses that are of one breed line and pick breeding partners to keep that line true to type without mixing other Curly lines with it. If you have a full line Curly Jim horse, breed only to Curly Jim line Curly or Smooth Coat Curly Jim horses or MFT's. If you have a Curly Jim line Miniature bred, breed that line only to Curly Jim Miniature line or Miniatures horses. This will preserve the line as its own Curly Breed Line. We also have divisions for Pony and Miniature sized Curly by height.

The whole population of Curly horses today is a mixed bag, but with good future breeding choices we can preserve original Breed lines and have several Curly Preservation Breed Line Divisions.



Breeding for a Curly Breed Line- FULL LINEAGE

Damele- Fish Creek mustangs, original horse breeds like QH, Appaloosa, Morgan, Arabian, are good choices. The goal is to keep the line true to type, not just breed Curly x Curly.

Damele/COOK- To keep the Cook gene separate, choose Smooth Coat Damele horses or Fish Creek NV mustangs.

Damele Pony/Miniature-, breed to other Miniature horses for miniature size (Bancroft Twist line), or Shetland for larger size, some Damele may already be POA or Welsh bred ponies. This will give size A & B sized ponies & miniatures.

Native/Warrior- breeding to other Native/Warrior horses, Curly or Smooth Coat or QH's is a good choice to keep this line true to type. Appaloosa may be another choice since they carry quite a bit of QH.

Fredell- It maybe too late to save this line, I only know of one Fredell mare, but if you have a Fredell only line horse, breed to a QH to preserve it and let us know about your horse.

WY Salt Wells/Rock Springs- breed to other Salt Wells horses, Smooth Coat or Curly to keep this line true to breed type.

NV Curly Mustangs- breed to other mustangs from the NV HMA or breeds found in the ancestry of the herd.

Sulfur Curly Mustangs- breed to other Sulfur mustangs or Spanish type breeds to preserve that unique Curly coat gene.

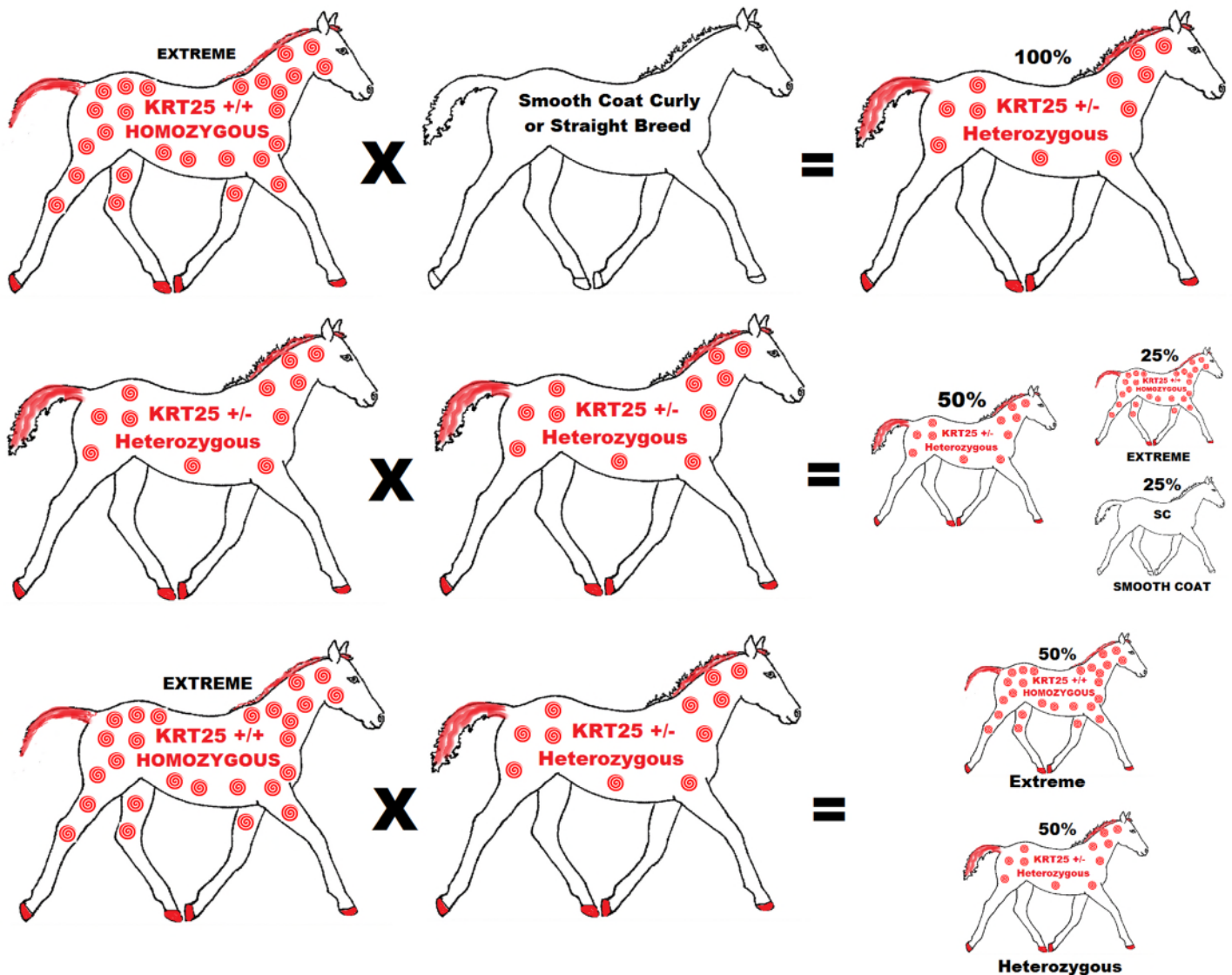
Canadian Curly- breed to other Canadian Curly horses (Smooth coat or Curly), possibly others after we know more about this Curly type through research. Look for future recommendations.

Canadian Pony/Miniature- Breed this line (founding Sire- The Pirate) to other Smooth Coat or Curly Pirate line or to Miniature horses.

Curly Jim MFT- bred this line to other Curly Jim line horses (Smooth Coat or Curly) or to Missouri Foxtrotters if they are also registered with MFTHBA. If not an MFTHBA registered Curly horse, Tennessee Walking horses are another possibility, since some of the founding horses of the Missouri Foxtrotter Association. Tennessee Walking horses were also used in one line of Curly Jim founding horses (Sir Patrick), so there is historical and breed history/tradition for breeding Missouri Foxtrotters and Tennessee Walking horses to Curly Jim horses.

Curly Jim Pony/Miniature- McKay used Shetlands for their pony line and many have used Miniatures. There are sized A and B ponies and miniatures in this line. The Miniature horse for smaller sizes and the Shetland for ponies are good choices. We offer Miniature and Pony classification by height measurement in A and B categories

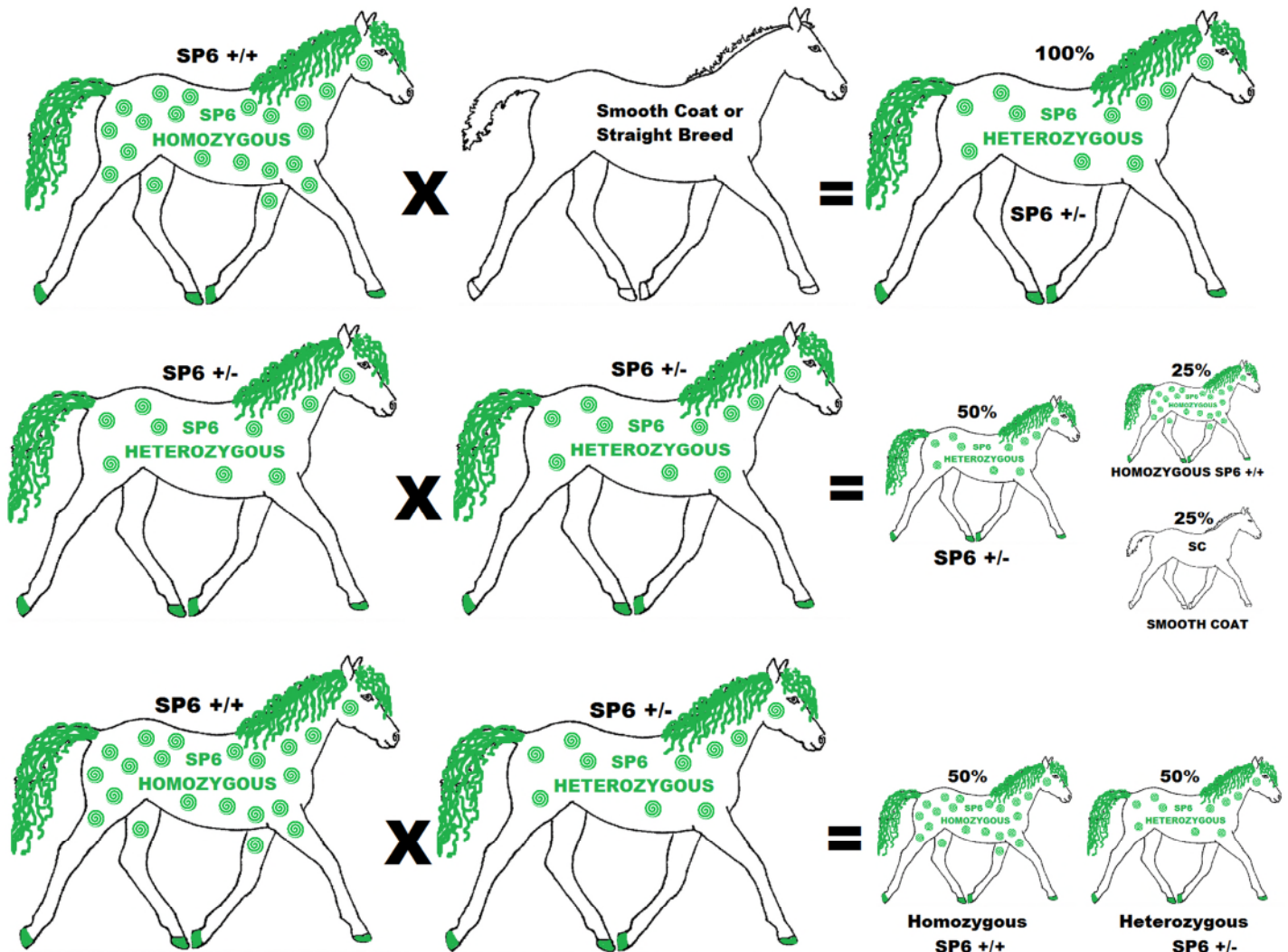
PRESERVATION CURLY LINE with KRT25 & BREEDING FOR A CURLY COAT



It must be taken into account that Homozygous extreme KRT25 +/+ horses are not as marketable as heterozygous KRT25 +/- horses are to the general buying public. KRT25 Lines- Damele, Native/Warrior, most NV mustangs, Salt Wells, WY mustangs, Canadian, Fredell

*Please note this chart is only accurate if Unknown Gene (a) and Cook gene are NOT present.

PRESERVATION CURLY LINE with SP6 & BREEDING FOR A CURLY COAT



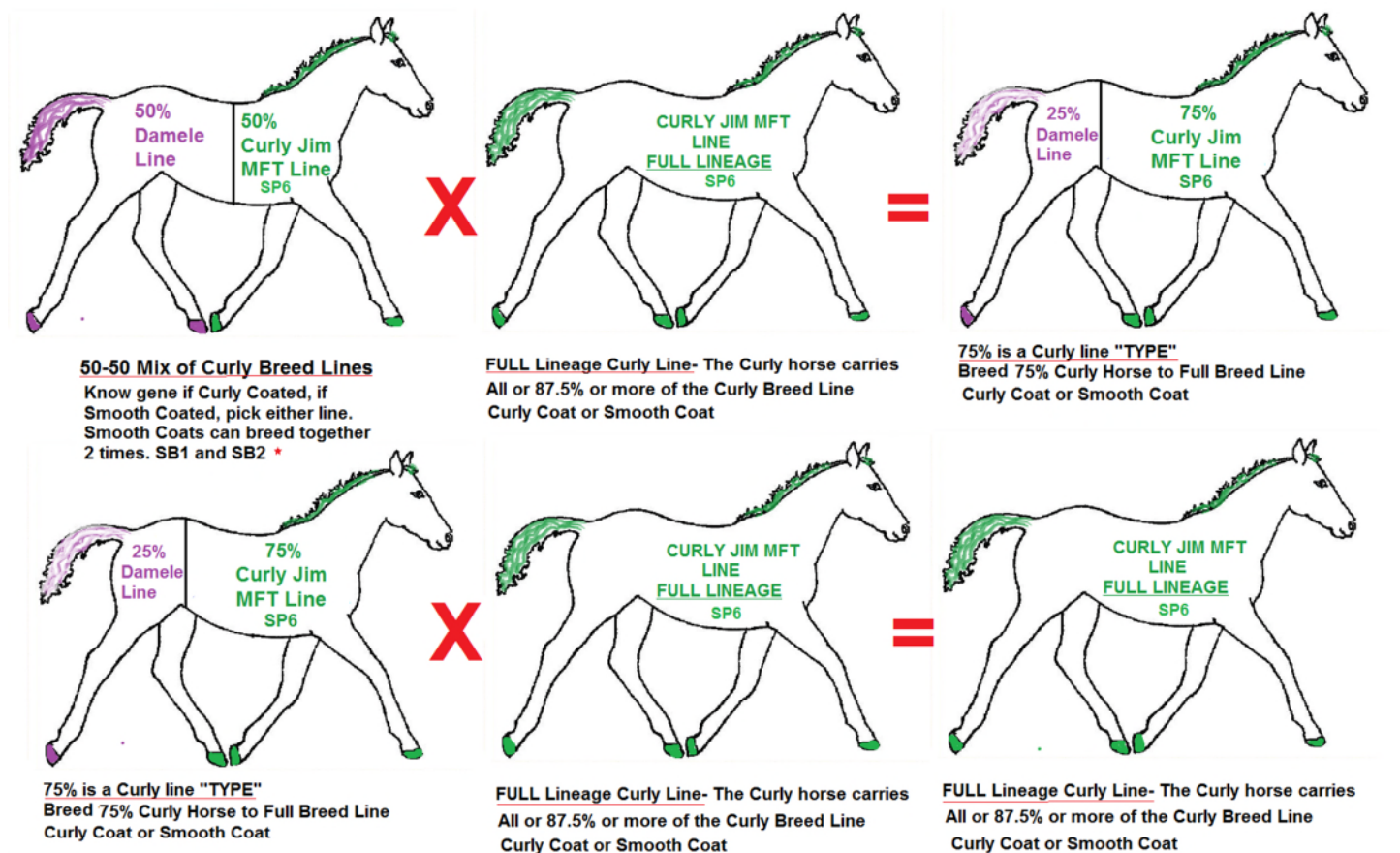
SP6 Coat Gene Curlies do not loose mane and tail when homozygous or heterozygous **Curly Jim Line**

Preservation Breeding for "Type" without full lineage- Since we know our original Curly breed lines with full lineage are getting very hard to find, we will group Curly horses that have 2 two different Curly pedigree lines to one Curly breed line even though they may have one other pedigree line to another Curly breed line. This will help save our lines that are very scarce.

Breeding up to Full Chart:

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Breeding up to FULL Lineage in a Curly Breed Line

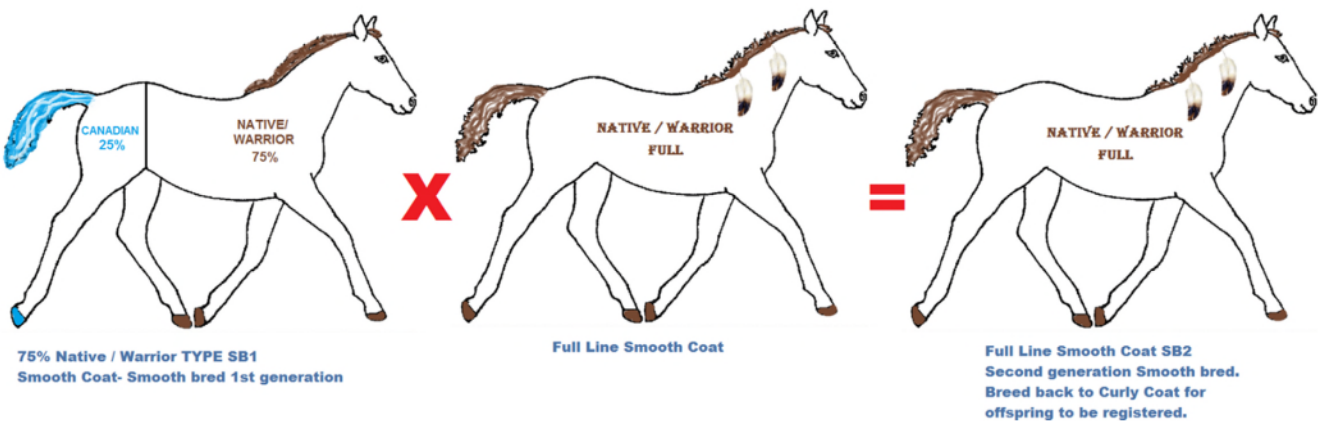
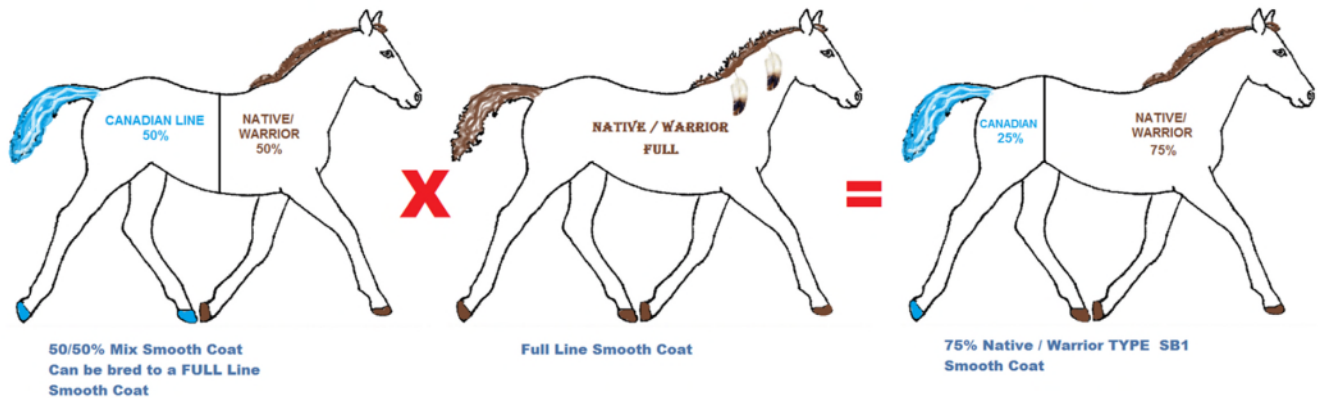


★ Smooth Coats (SC) are an important part of the Curly Breed Line, especially to breed to homozygous Curly Coats. We allow SC X SC = SB1 Smooth Bred 1 generation. SB1 x SB1 = SB2, second generation Smooth Bred. An SB2 must be bred back to a Curly Coated Breed Line horse. This makes saving a Preservation Line easier especially for those breed lines of low numbers. The Smooth Coats could save these almost extinct lines from disappearing. Smooth Breds SB1 and SB2 have all registration rights in the Smooth Coat Division and Preservation Line Status.

Using Curly Smooth Coats to Persevere a Curly Breed Line:

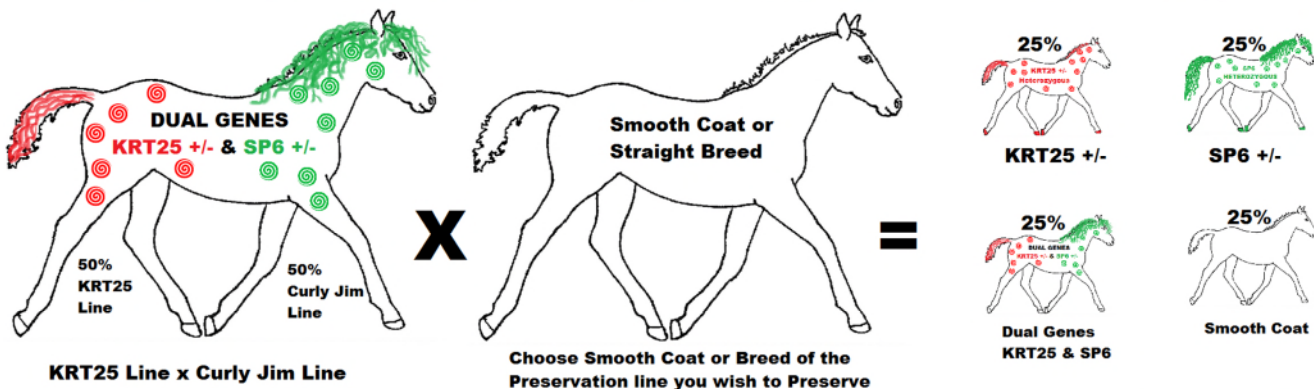
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Breeding up to FULL Lineage using Smooth Coats in a Curly Breed Line



In some instances Smooth Coats could help save an entire endangered Curly Breed Line if only a few can be found with Curly coats and the rest are smooth coats

Preservation Breeding using a Dual gened horse to breed up



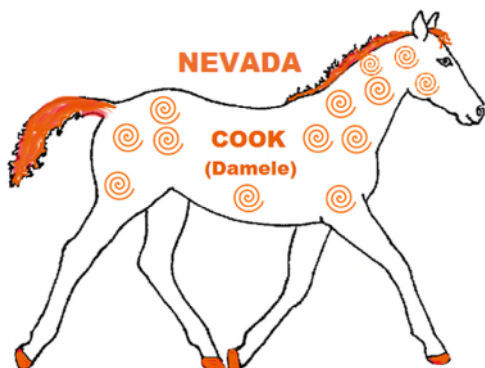
This is most likely the most difficult way to breed up and save a preservation line since you only have a 25% chance of getting the Curly gene you desire and a 25% chance of getting a smooth coat.

It would be easier to do on a Curly pony miniature line because either SP6 or KRT25 is found in the Curly Miniatures and the other breed used could be a Miniature straight coat. There is a 75% chance of a Curly Coated Foal.

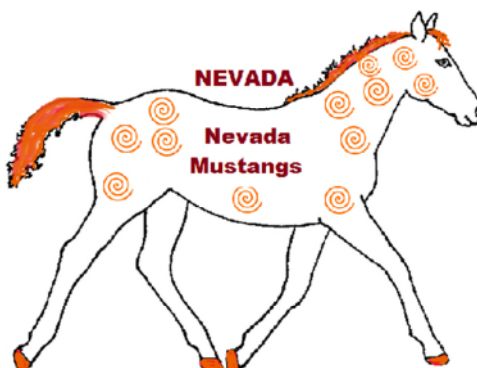
Offspring would be 50% Preservation line if Curly coated and one coat gene inherited, would be typed to Preservation line the coat gene is related to. Example- SP6 inherited, dam was a Miniature- Foal 50% Curly Jim Type

Unknown Curly Coat Genes and their Breed Line Origins (Only breed to that one line or straight breeds, do mix with other Curly Horse Lines because these Coat genes are unknown and we do not know the effect of mixing unknown genes:

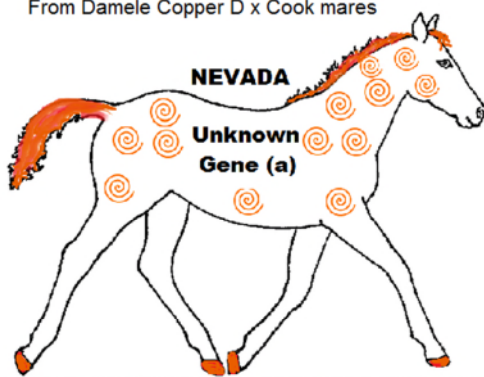
UNKNOWN CURLY COAT GENES- All tested negative for KRT25 & SP6



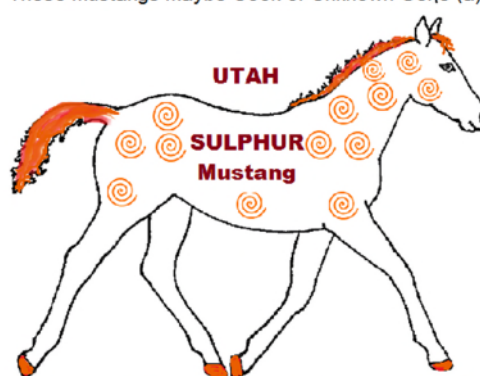
From Damele Copper D x Cook mares



These mustangs maybe Cook or Unknown Gene (a)



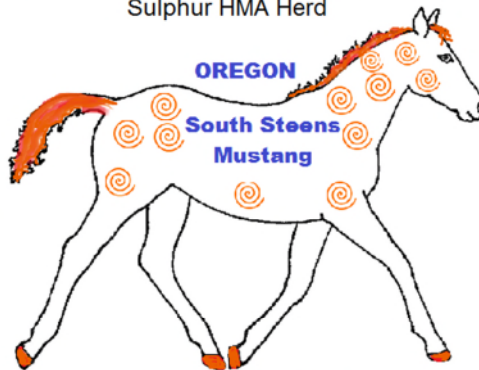
Found in Balding horses



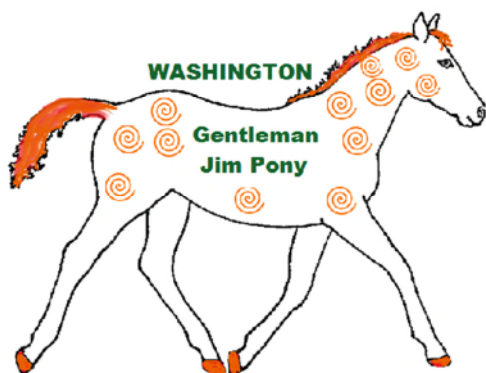
Sulphur HMA Herd



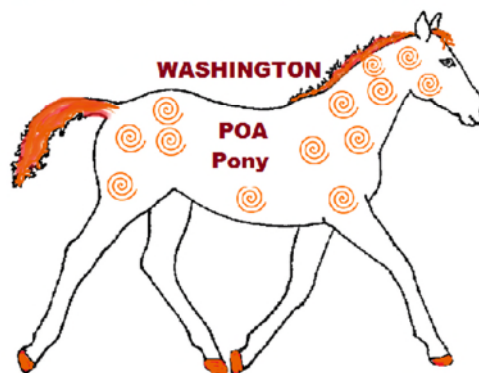
Native American horses taken from Spanish Stock



Rare for a Curly Horse to be found here



Curly Jim Pony x straight mini



Actual bloodlines unknown

**Please note, this article will be updated as new Research information becomes available.*

Bunny Reveglia/ Dr Mitch Wilkinson