



**Navajo-Churro Sheep Association**



# **A Guide to the Selection of Navajo-Churro Sheep**

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# Navajo-Churro



This document has been compiled with photos and input from members of the Navajo-Churro Sheep Association. The intention of the document is to show sheep that meet the Breed Standard as well as those which do not. For this reason many photos are included which identify examples that are both good and bad (acceptable for registration and unacceptable).

The document is subject to revision and updating periodically.

Comments and suggestions should be directed to the Breed Standard Committee Chairman.

This Guide was approved by the Board of Directors in 2010.

# Preface

This document is intended as an educational guide to the Navajo-Churro Breed Standard. It will give breeders visual help with Navajo-Churro sheep and wool traits and an expanded understanding of each section of the Breed Standard by providing photographs of sheep that fall into the following categories established in the Breed Standard, namely:

1. "Most Desirable"
2. "Acceptable but Marginal"
3. "Unacceptable for Registration"

Because of the subjective nature of evaluating Navajo-Churro sheep, the Guide is intended to help breeders select conforming stock and to assist by showing photos of sheep that would pass, would marginally pass or would not be accepted for registration if similar photos were provided. Breed standard allows for variation within parameters. Sheep will be registered according to the Navajo-Churro Sheep Association Breed Standard. **This document is intended as a GUIDE ONLY and in no way modifies the Breed Standard.**

An educational guide of this type has long been needed to help breeders in all parts of the country establish their breeding goals. It is not the intent of the Association to have sheep in one area appear or behave differently from sheep in another area. Equally, the Association is not looking for a 'cookie cutter' sameness to the breed. The Breed Standard allows for variation. This document attempts to show a cross section of the present day population including marginal as well as unacceptable traits.

It must be remembered that there are more important genetic traits in these sheep than can be shown in pictures. It is paramount to the survival of the breed that sound animals with good mothering and milking abilities, disease resistance and hardiness be selected for in replacement stock. This cannot be shown in pictures.

I would like to thank all those who have contributed to this document. Neither breeders nor sheep are identified so that the document cannot be used to advertise any individual's sheep, good or bad.

Ingrid Painter.  
Chair, Breed Standards Committee



Three good, white Navajo Churro ewes with various facial markings. Middle ewe has the distinct 'churro' pattern.



**Sheep are registered according to the N-CSA Breed Standard. This document is intended as a GUIDE ONLY.**

# Navajo-Churro - a little history



Today Navajo-Churro are found in all parts of the United States. The sheep have mostly originated from breeding stock found in Arizona, New Mexico, Utah and Colorado. Breeders in all areas are interested in maintaining a phenotype which adheres to the Breed Standard set up by the Navajo-Churro Sheep Association in 1986. It is for this reason that a guide is necessary so breeders all over the Nation can refer easily to what is or is not approved by N-CSA. N-CSA is not intending to create a uniform-looking sheep since the origins of the Churra sheep of Spain were also from many parts of that country. A variety of breeds, collectively known as Churra, were imported in the 1400s and subsequently crossed with other breeds.

Many breeds were introduced to the southwest under the auspices of 'improving' the sheep found in and around the Navajo Nation. Most of

these introductions were not successful but their genetic traits linger on. It has been the intention of N-CSA to select for registration, sheep which meet the criteria established from data collected in 1936 to 1966 by the Southwestern Range and Sheep Breeding Laboratory at Fort Wingate, N.M and from Navajo, Hispanic and Anglo concepts established at the founding meetings of N-CSA.



## Considerations when Registering Sheep

- \* Animals which fall into the Acceptable but Marginal group with several less desirable points may be rejected for registration. Those sheep could possibly produce offspring which are 100% acceptable. For this reason every sheep will be judged on its own merits.
- \* An 18 - 20 month old sheep with a marginal or undefinable fleece may be reconsidered by inspection of its next year fleece.
- \* No lambs will be considered for registration but temporary breed certificates can be issued for shows.
- \* An 18 - 20 month old sheep with marginal wool on face or legs may be reconsidered the next year.
- \* Always take pictures when the fleece shows adequate length and desirable characteristics and all 'lamb woolliness' or seasonal fuzz has disappeared.



Newly shorn sheep, like the ones illustrated above, give little information to inspectors. Waiting a minimum of 4 months after shearing yearlings should allow enough time for the fleece to grow back so the wool characteristics are evident. These 7 month old, recently sheared lambs are too young and do not have enough wool growth to be evaluated for registration.

Another consideration to keep in mind is where sheep are photographed. They should face the light so their bodies are not in shadow. They should be photographed on flat ground if possible so that pasterns can be seen and top line is not distorted. The front two lambs show weakness of the top line. Compare these to the ewe on Page 20, picture 6, with a strong back line and obvious slope at hip, a characteristic of 'unimproved' breeds.

The ewe at the bottom right, page 3, has what appears to be an excellent square body and correct legs, falling perfectly under the four corners of the sheep.

An excellent site illustrating good and bad leg conformation is:

<http://www.danekeclublambs.com/SheepFeetandLegStructureTest.html>

# Navajo-Churro Sheep Association Breed Standard

## Description

This is a coarse, long woolled sheep for use as wool, meat and dairy animals. They come in all colors from white through every shade of natural tones. An unimproved breed, they are frequently long legged with narrow bodies and show little inclination to put on fat. The sheep should have sound legs and straight top-line which tends to slope to the dock in more primitive individuals. They can be horned or polled with a little wool on the poll and none on the cheeks, around or below the eyes or on the nose. The belly should have little or no wool. There should be no wool on the front or back legs. The fleece is high yielding with a low grease content. Some sheep may have wattles and some have short ears.

## Size.

Mature ewes  
weigh approx.  
85-120#.

Mature rams  
weigh approx.  
120-175#.

## Color

Specific color patterns with their international genetic names will be used where possible to describe sheep for the Registry.

White sheep, often with spotted faces and legs, are most common. Colors are described as light tan, brown and black. Patterns such as badger face, black and tan, piebald and spots are encountered. These multicolored individuals can come in two, three or four distinct colors. White on the poll and white tipped tails on solid colored animals are common.

## Fleece

The wool is classified as coarse and is composed of three distinct types of fiber:

**Inner coat:** Wool fibers range from 10- 35 microns, comprising 80% of the entire fleece, measuring 3 - 5 inches in length.

**Outer coat:** Hair fibers measuring 35+ microns, comprising 10- 20% of the entire fleece, measuring 6 to 12 inches.

**Kemp:** Short opaque fibers of 65+ microns not to exceed 5% of the fleece. The fleece has no defined crimp.

## Horns

Navajo-Churro may be horned or polled in either sex. Multiple horns are not uncommon but should be balanced and not grow excessively forward or grow into face causing obvious interference with the sheep's well being. In two horned rams the horns should be well spread with adequate

spacing between the horn and the cheek or jaw.

## Tail

Navajo-Churro is a long tailed breed without a fat tail or rump.

## Legs

The legs should be woolless front and back.

## Ears

Medium sized, not broad, not large and droopy. Small ears can occur.

## Eyes

Eyes should be clear and bright with no evidence of corneal ulceration due to split upper eye-lid condition.

## Belly

Little or no wool.



**Anyone submitting  
sheep for registration  
must realize that all  
decisions are based on  
the Breed Standard  
ALONE  
This is a GUIDE ONLY  
and does not alter the  
Breed Standard in any  
way.**

# Navajo-Churro Breed Traits

## Most Desirable

- \* Long, shiny double-coated fleece
- \* Fleece high yielding, low grease content
- \* No defined crimp
- \* Less than 2% kemp
- \* No wool on belly
- \* Normal eyelids
- \* Open, clean face
- \* Medium to small sized ears held at or just above horizontal
- \* Balanced horns or polled
- \* No wool on legs
- \* Tight skin



The three ewes, top picture, are from Cecil Blunn's "Improvement of Navajo Sheep," Journal of Heredity, March 1941.



These ideal/acceptable ewes are all Navajo Churro but do NOT appear identical. For instance, observe the difference in size and angle of the ears and body type. Also, the fleece appears the same but varies in length according to date of last shearing.





**Acceptable but Marginal**

- \*Wool lacking in luster
- \* Less than 10% outer coat
- \* Up to 5% kemp
- \* Wool on belly
- \* Mild notch in upper eyelid not causing irritation
- \* Small amount of fuzz on cheeks or nose
- \* Larger but non-droopy ears
- \* Slightly unbalanced horns
- \* Some wool on hind legs
- \* Scurred animals
- \* Some looseness or a few wrinkles in the skin



The yearling ewe above has barely adequate outer coat. She has residual wool on her back legs. She is acceptable depending on a correct fleece sample being submitted.



**Picture 1** shows a yearling ewe with a correct fleece but she also has residual wool on her back legs.

**Picture 2** has fuzz on the face, which most likely will disappear in the Summer months.

**Picture 3** same ewe, Summer.

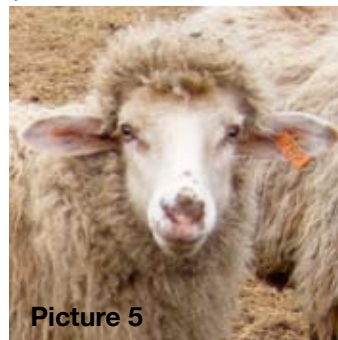


**Picture 4** lamb has some fuzz on cheeks and small (acceptable) ears. Compare the lamb in picture 5.

**Picture 5** has larger ears but not droopy, also acceptable. The orientation and angle differs from the Karakul in picture 6.

**Picture 6** shows unacceptable orientation of Karakul-style droopy ears.

**Picture 7** shows a ram with unbalanced, but non-lethal horns which would be acceptable.



**Unacceptable for Registration**

- \* No outer coat of hair
- \* All fine fleece
- \* Defined crimp
- \* High grease content
- \* Over 5% kemp in fleece
- \* Woolly or closed face
- \* Horns growing into face
- \* Wool on all four legs
- \* Split upper eyelid which causes injury to eye (milky eye)
- \* Large droopy ears
- \* Excessively wrinkled skin
- \* Fat tail or fat rump
- \* All skeletal abnormalities or other congenital defects even if surgically altered
- \* Quite large commercial meat type sheep



Picture 1

**Description of Faults**

1 shows a ram with no outer coat, a short fleece for 3 months' growth and his lower horns have been cut.  
 2 shows wool on all four legs, inadequate outer coat and a 'commercial' or 'blocky' look to the sheep.  
 3 shows a woolly face.  
 4 shows undesirable horn formation. See also Page 11.  
 5 shows a type 4 split upper eye lid. See also Page 15.  
 6 shows the droopy ears of a Karakul.  
 7 shows 2 sheep, one with a fat tail (left) and without (right).  
 8 shows a heavy, blocky type lamb. Note droopy ears. More pictures and fleece sample would be needed to determine breed traits.



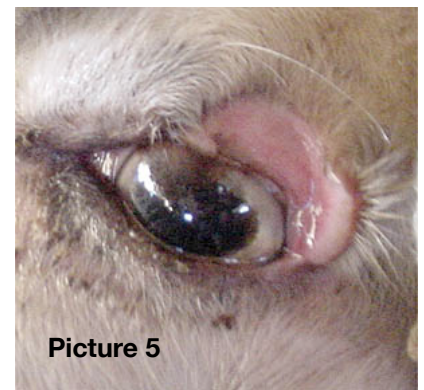
Picture 2



Picture 3



Picture 4



Picture 5



Picture 6



Picture 7



Picture 8

## Horn Formations in Rams



Above pictures show unacceptable, narrow 2 horned rams and 1 unacceptable 4 horned lamb. The base of 2 horned rams enlarge as they mature leaving no space for ears and eventually interfering with the cheek and jaw. Horns like this become a management and health problem always needing cutting. Because of the significance of the ram to the breeding program those exhibiting heritable traits like these should be recognized and culled.



Picture 1



Picture 2

**Picture 1** shows a ram with evenly fused horns, so he is genetically multiple horned . Compare this ram with the 2 horned ram in **Picture 2**. Ram 1 has a “seam” (not the black stripes) running the length of the horn and divided tips, showing that the horn core is divided, as in all multiple horned sheep, but growing close together. Both rams show wide horn formation which will not cause problems and are acceptable for registration.



Picture 3



Picture 4



Picture 5

**Picture 3** shows a ram lamb with horns which were separate but the enlarging upper core is taking over. A year later the same ram **Picture 4**, appears to be 3 horned - fusing the horns on one side only. Rams like this are acceptable for registration.

**Picture 5** ram shows a well balanced 4 horned head.

Polled rams are acceptable for registration. The majority of ewes are polled.

# Fleeces and Samples



The structure of this fleece is incorrect for a Navajo-Churro. It has very little outer coat, appears 'curly'. It would fail.



Perfect fleece showing open locks, outer and inner coats and lots of luster.



Fleece with less luster but still very acceptable.



Coarser fleece, but acceptable.



Typical lamb fleece sample.



Adult sample with luster.



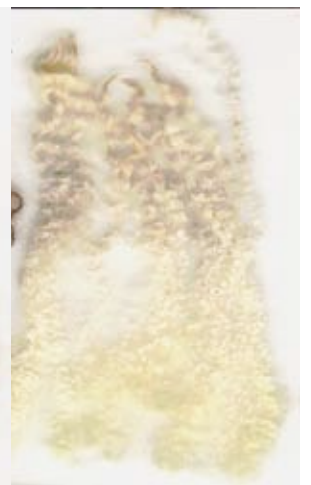
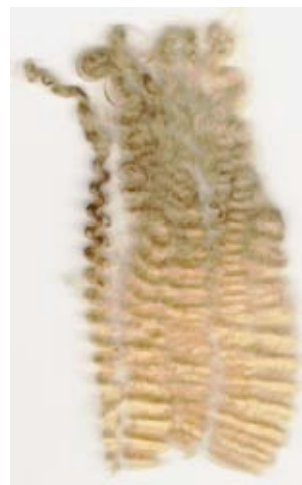
Coarser adult sample with luster.



Sample showing distinct inner and outer coats. Excellent example.



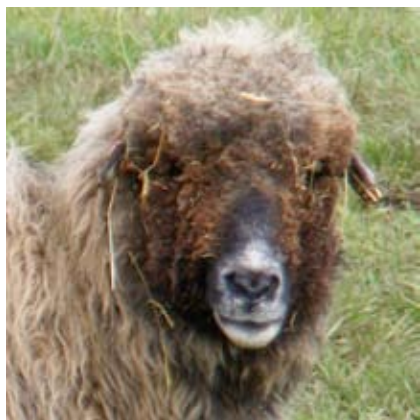
Adult sample showing kemp fibers. Unacceptable fleece.



Two samples to show crimp. Sample on left is coarse and on the right is fine. Neither is from Navajo-Churro fleece.

## Facial Woolliness

Some sheep have wool on the face for various reasons such as age (lamb fuzziness), environmental/seasonal and feed. Wool growth on forehead and cheeks can vary seasonally. Woolly faces which don't shed out are unacceptable.



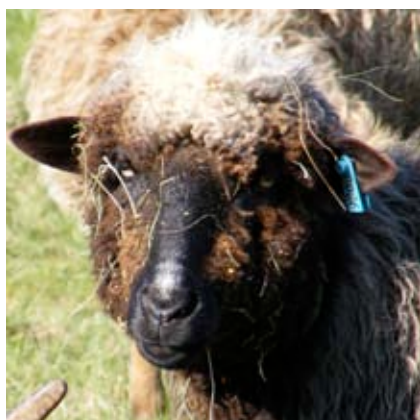
This illustrates a closed face. Unacceptable.



Too much lamb fuzziness. This may shed at maturity but is unacceptable at this time.



Too much lamb fuzziness. This will shed. Inspector would request later, more mature picture.



Too much wool. This may be seasonal and shed in summer. As is, it is unacceptable.



Too much fuzziness down nose, below eyes. This will possibly shed if it is seasonal.



Fuzziness may be seasonal and will likely shed out in Summer. As is, is marginally acceptable.



Clean face. Acceptable.



Clean face. Acceptable.



Clean face. Acceptable.

# Legs and Belly Woolliness



Wool on front and back legs of this lamb could shed. Unacceptable as is.



Too much wool front and back. Could shed. Unacceptable as is.



Woolly back legs. Could shed. Unacceptable as is.



2 month old lamb. Too much wool on front and back legs.



Same lamb a few months older still with some wool. Will likely shed it all. Wait to register until wool has shed out.



Wool on back legs which is obviously shedding. Wait to take photos for registration.



Some fuzziness on legs and belly. Acceptable.



Clean front legs, some fuzziness on back legs and a little wool on belly. Acceptable.



Clean legs and clean belly. Most desirable.

Leg wool can be due to inheritance, the age of a lamb and even seasonal change. Wool on all four legs as an adult is considered a fault. Lambs will often shed marginal leg wool as they mature. The front legs generally are clean by the time the lamb is a yearling. The back legs may retain marginal wool even as an adult. This is considered an **Acceptable but Marginal** fault. A woolless belly is seasonal in many sheep but most retain some all year.

Another leg fault can be illustrated with these photos. Compare top row left and right to the middle photo. Left and right show nice, upright pastern, middle shows some weakness, though not extreme so is acceptable in this case.

# Split Upper Eye Lid Types 1 to 4



Normal eye. **Type 1** - Right eye Normal



**Type 2** - right eye, showing break in the eye-lash line



**Type 2** - right eye showing more clearly the missing eyelashes



**Type 2 or 3**, left eye - a slight break but no corneal involvement



**Type 3** right eye with a tuft of hair forming a 'seam' towards the base of the horn



**Type 3** with no tuft. Left eye



**Type 4** - left eye, showing complete split upper eyelid and corneal abrasion caused by the turned under eyelashes

The split upper eye lid **is not a common occurrence** unless multiple horned rams are constantly used in a flock. Multiple horned sheep can inherit a defect of the upper eyelid - not to be confused with entropion, which is a turned in lower eye lid. This defect has been seen in all breeds that inherit the ability to produce more than one set of horns.

During development, the horn core splits. The split can continue downwards to the eyelid which then develops as two separate parts which, if folded into the eyeball, will cause injury and even blindness. A split upper eyelid which causes injury to the eye (milky eye) is unacceptable. However, it would be inadvisable to use a ram with a type 3 or 4 split. To avoid increasing the chance of producing lambs with the defect it has long been known that two horned rams should also be used in a flock.

**The incidence of split upper eyelids in multiple horned lambs is reduced by the use of two horned rams.**

There is some evidence to show that breeding *exclusively* for multiple horned animals is detrimental. This includes the use of animals with fused horns that appear to be 2 horned but have a seam running the full length of the horn. However, the unique four horned trait would quickly disappear if only two horn animals are selected for in a flock. A type 2 eyelid is acceptable for registration. Split upper eyelid which causes injury to the eye (milky eye) is unacceptable for registration.

# Appendix A

## Case History 1

The following case histories are shown to give the breeder a sense of how sheep can change with maturity. It is often difficult to predict these changes but with frequent photographic documentation a breeder can learn how to recognize a “good” sheep at an earlier age. These pictures also illustrate clear photographs for registering a sheep.



The yearling ewe and her fleece sample at left were marginally passed. The fleece on her body looks as if it 'breaks' behind the shoulder with little or no outer coat in that area. Part the fleece here to look for crimp. She is clean faced and clean legged. At this age, her sample shows some outer coat and a dense undercoat.



At 3 years and 8 months the photos and fleece samples show non-Churro characteristics. The sample appears to be cotting/felting. The next fleece, 11 months later, shows no outer coat and crimp. Both samples are extremely short for 7 and 11 months of growth. If this animal had been submitted for registration with these photos and the later fleece samples the sheep would not pass.



## Appendix B Case History 2

This case history is included to show how some sheep can change with feed, maturity and season.



The yearling ewe above (photo May) was rejected for registration as being phenotypically incorrect and too immature. Resubmission photos were requested. The fleece sample above left were from her six month lamb fleece and the right one six months later, as a yearling.



Left photo above and insert taken in August and the right one in February the following Spring.



Lower picture and 6 months' growth sample is the same ewe at age 3. Photo taken in the Summer. The sheep was subsequently passed at maturity.

## Appendix C

### Case History 3

This case history is included to show how some sheep can change with feed, maturity and season. Taking photos at the correct time is important to show the sheep to its best advantage for registration.

Photos and fleece samples are from the same ewe.



January face is unacceptable and September face, same ewe, is acceptable



The fleece samples above and below are 6 months growth from the same ewe, two years apart. The samples show how the fleece changes color. The photo above shows a maturing fleece and below an adult fleece. The ewe passed for registration.



## Appendix A Quick Guide to Color/Patterns



**White** sheep are sometimes born **Tan** colored. They generally lose this brownish color within months and have a white fleece as adults.

**Black** lambs will generally stay black until after their first shearing.

Every year thereafter they generally get progressively grey with age. Faces, legs and belly will remain **black**.



**Brown** lambs are born looking almost black. The **brown** gets progressively lighter with age. The face, legs and belly remain **brown**.



The **Black & Tan** pattern can be born looking as if it has a brown body with a white belly and rump but the body fleece changes within months to black until after the first shearing then progressively gets more grey with age. The belly, scrotum and the rump remains white. The legs in some individuals are black and some a bronze color. All colors (black, brown or white) showing the **Black & Tan** pattern retain their white belly and rump for life.



The body in **Brown & Tan** lambs are various shades of brown at birth. The belly through to the rump will always remain white. The brown body generally fades progressively with age. Face and legs retain the brown. A dark brown belly stripe is often seen dividing the body color (brown) from the belly color (white) in faded mature animals. This is not to be confused with a different pattern. This stripe is the remains of the original color of the sheep before it faded. This is often seen in any color of B&Tan patterned sheep.

## Appendix B

# Quick Guide to Color/Patterns Continued



**Black, Brown or Grey Badger** pattern always have white fleece on their body. Most show a great amount of **Tan** on the body at birth, making owners mistakenly call them “tri-colored”. The **Tan** fades to white. The face, legs and belly retain the birth color: black, brown or grey. Badgerface patterned sheep have facial markings but rarely have a blaze on their face like the animal of that name.



These **Grey** lambs in pictures 1,2, 3 and 4 are shown as adults in pictures 1a, 2a, 3a and 4a respectively. 1 is a **Grey & Tan**, 2 is a **Grey**.



The sheep shown as a lamb and an adult in pictures 3 and 3a is a combination of two patterns. Spotting and English Blue.

The sheep shown in picture 4 shows a heavily tan colored lamb. 4a shows her as an adult. She is a **Grey** ewe with Spotting.



The lamb and adult in picture 5 and 5a is a **Brown English Blue** patterned sheep. The pattern can be brown, black or grey. They develop white tear drops and a moustache as they mature.

The lamb and adult in picture 6, 6a and 6b is a **Lateral Stripe** patterned sheep. The pattern always has a **White stripe** dividing the belly and body wool. The stripe continues around the brisket to the udder/scrotum which is generally white.

## Appendix C

# Quick Guide to Color/Patterns Continued



**Combination patterns** are the most confusing. Pictures 1, 1a, 1b, and 1c are all the same ewe. The lamb picture appears to be a dark brown lamb with black legs. The brown is **Tan** which can be seen fading to grey, then white as an adult. The lamb appears to be a badger but picture 1c shows she has a white belly therefore not a badger but a combination **Badger/B&T**.



Pictures 2, 2a and 2b are the same ewe. She is a **Badger/Grey&Tan**. The dark belly/body stripe, (pict 2b) is all that is left of the dark belly of a badger. This combination always has the **dark stripe**. As an adult, her fleece is a light grey with white outer coat, dark belly stripe and white belly. The **Lateral Stripe** pattern is opposite - a dark belly with a white belly stripe and dark body (see Page 20, pictures 6, 6a and 6b)



The lamb and adult in pictures 3 and 3a is a combination of two patterns. **Spotting and English Blue**. Tear drops are evident as an adult. She is **Brown** with a large white spot.

The lamb and adult in pictures 4 and 4a is a combination of two patterns, **Spotting and English Blue**. This ram shows more of the English Blue than sheep 3.



The lamb and adult in picture 5 and 5a is the **Spotting** pattern. Spotting often masks another pattern.

The lamb and adult in picture 6 and 6a is a more defined **Spotting** patterned sheep. The distinct white and colored body areas tend to blend or fade as the sheep ages.

## Appendix a

# Spanish Churro from I.L.Mason\*

\* The Sheep Breeds of the Mediterranean, published by T & A Constable Ltd. for Food & Agriculture of the United Nations.



Churro Galega Miranda



Churro Lacho



Churro Braganca Galega



Churro Portuguese Braganca



Churro Galega Miranda



Churro de Campo



Churro Algave



Churro Andalusian



Churro Grande Manech ewes

It has been documented that the Navajo-Churro stem from early imports of Spanish Churro. The inclusion of the above Spanish sheep in this document is to illustrate the wide variety of Churro that exist. The ancestors to the sheep that first came to the Americas may have looked similar to these. Although subsequently crossed to several other breeds since the 1400s, Navajo-Churro today show similar traits to these Spanish sheep.