

# **The Suri Network Suri Breed Standard**

## **Phenotype of the Suri Alpaca**

The Suri Alpaca Phenotype should present a distinctive elegant profile with balanced body proportions (neck/body/legs) and vigor. The Suri head and fleece should exhibit fibers with the described characteristics of a straight, high luster, slick/cool handling, and independently defined fiber. The correct free-flowing movement may be emphasized by the swinging of a drapey fleece. The suri alpaca phenotype is the product of a breeding between a Suri alpaca female and a Suri alpaca male.

## **Positive and Negative traits are listed in order of importance.**

### **POSITIVE TRAITS**

Suri Fiber Style  
Fibers without Crimp  
Balanced Proportions of  
Neck/Body/Legs  
Upright Neck Set/Withers  
Alert Appearance, Style and Presence

### **NEGATIVE TRAITS**

Evidence of Crimped Fibers  
Disproportion of Neck/Body/Legs  
Forward or U-Neck Set  
Dull, Inattentive

## **The Suri Head**

The Suri Head Profile should show a medium length nose proportionately balanced to the wedge shaped jaw, a tapered muzzle, and a forelock with defined Suri style locks. Ears should be spear shaped, medium to long in appearance, and proportionate to the head size. The set of the ear should be upright with placement not too low or wide on the head. The bite and jaw should have correct alignment.

### **POSITIVE TRAITS**

Correct Jaw Alignment  
Correct Bite/Teeth Alignment  
Spear-Shaped Long Ear  
Suri Fiber Style Forelocks  
Balanced Nose/Jaw ratio  
Profile – Tapered Muzzle  
Almond Shaped Eye

### **NEGATIVE TRAITS**

Poor Alignment, wry face  
Incisor Malocclusion  
Short/Round/Curved/Fused  
Fuzzy Forelocks  
Long Nose/Short Nose  
Deep Squared, Dished  
Round Bulging Eye

## The Suri Body

The mature Body should exhibit a balanced proportion between the length of neck, leg and body torso, present sufficient width of chest, depth of body, and capacity for maintaining adequate nutrition and reproduction. The Profile view should present a relatively level top line appropriate for age of the alpaca and sloped rump with a normal alpaca tail set.

### POSITIVE TRAITS

Balance and proportion of neck and legs are equal in length and either is 2/3 the length of the back

Capacity, width and depth of chest, rib, body and pelvis

Level Top Line

Correct Alpaca Tail Set,  
Rump angle-Sloped Rump at approx. 45 degrees

Straight tail

### NEGATIVE TRAITS

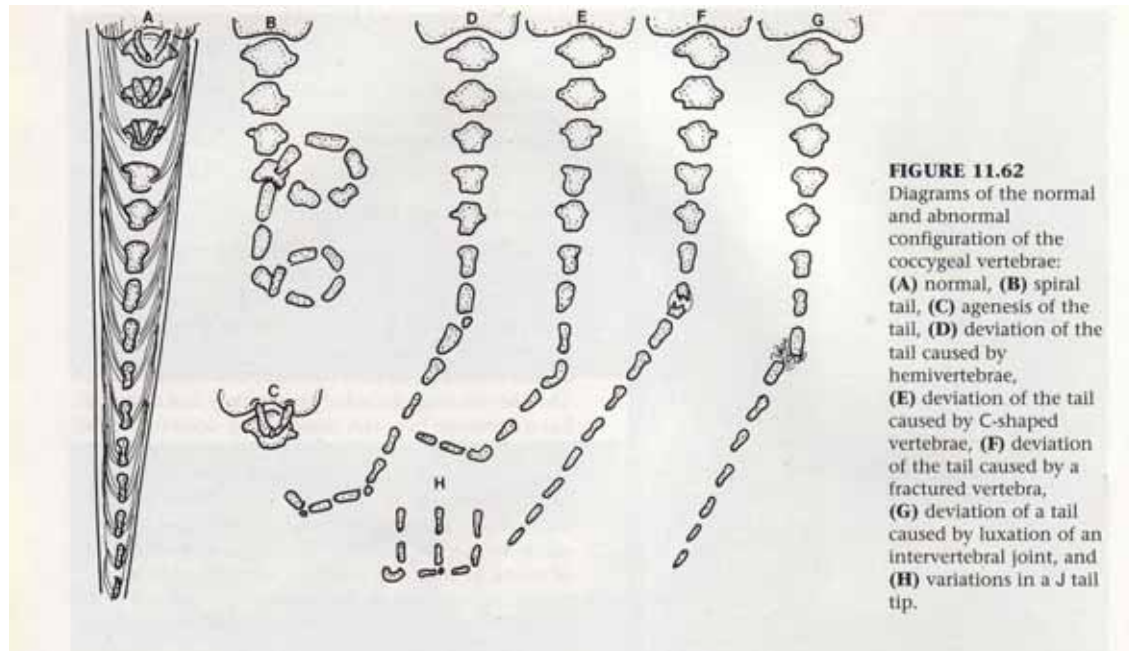
Too Long / Too Short

Narrow, shallow body areas

Kyphosis (Humped) or Lordosis (Sway Back)

Set Too High/Low, Severe or shallow angle of rump

Kinked/curved tail (see illustration)



## The Suri Legs and Movement

The legs should be of a length balanced to the neck/body proportions to provide flexible, free movement in a correctly aligned square foot pattern (as viewed from front and rear). The alpaca should display a level top line and balanced stride in the profile view, with good strength and substance of bone. Correct conformation will be indicated by equal distance or a parallel line drawn between front legs (shoulder, knee to fetlocks) and rear legs (hips, hocks to fetlocks), viewed front and rear. The profile views will exhibit proper angulation of the shoulder and hock which allows for a free balanced stride and movement on upright pasterns. Note: See illustrations on the following page.

### POSITIVE TRAITS

#### FORELEGS -

Equal distance between the front legs from shoulder – to fetlock

Adequate chest width

Toes & Nails straight facing forward

#### REAR LEGS –

Equal distance between rear legs from hips to fetlocks,

Adequate Width Hips/Pelvis to Toes  
Toes/Nails Straight Pointing Forward

### NEGATIVE TRAITS

#### Medial Deviations

Carpal valgus (knock-knee), carpal varus (bow legged)

Base Narrow, Base wide

Splayed toes, pointing outward/inward, polydactaly, syndactaly

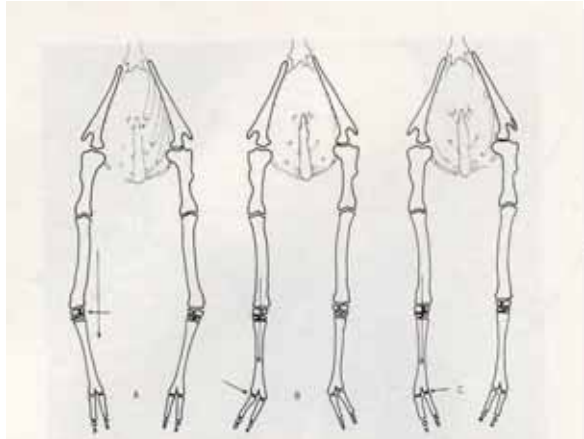
#### Medial Deviations

Cow-Hocked (hocks close together with toes pointing outward)

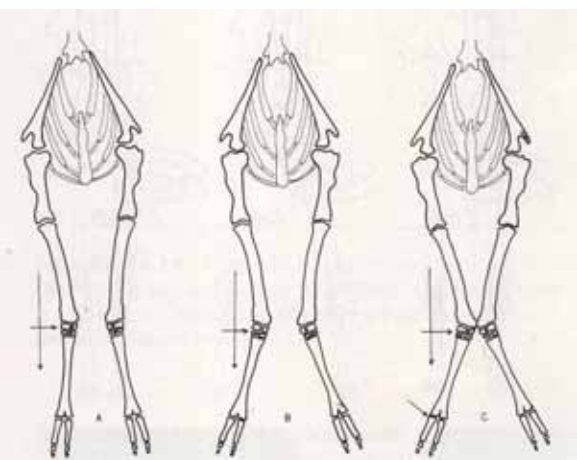
Sickle-Hocked (hocks too far apart and toes pointing inward)

Base too Narrow/Too Wide

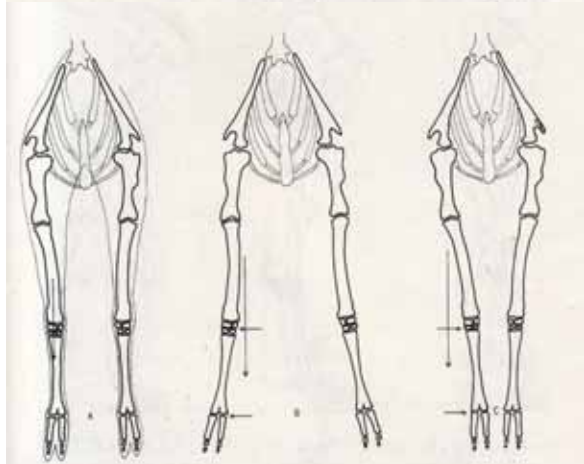
Toes/Nails angled inward/outward, polydactaly, syndactaly, splayed-toes



**FIGURE 24.7** Forelimb, front view: (A) carpal varus, (B) angular deformity of fetlock (splayed), (C) angular deformity of fetlock (pigeon-toes).



**FIGURE 24.6** Angular limb deformity: (A-C) degrees of carpal valgus.



**FIGURE 24.4** Forelimb, front view: (A) normal, (B) base wide, (C) base narrow.

PROFILE VIEW LEGS –

**Captions in shown in bold are all equally important.**

POSITIVE TRAITS

Normal Shoulder angle, normal shoulder position  
Normal Carpal alignment

Normal Hip/stifle/hock angle

Upright flexible pasterns

Legs should be placed square with the body

Balanced Proportions body/neck/legs

Adequate Substance of Bone

NEGATIVE TRAITS

Straight Shoulder angle  
Buck-Kneed (forward), calf –kneed (back)

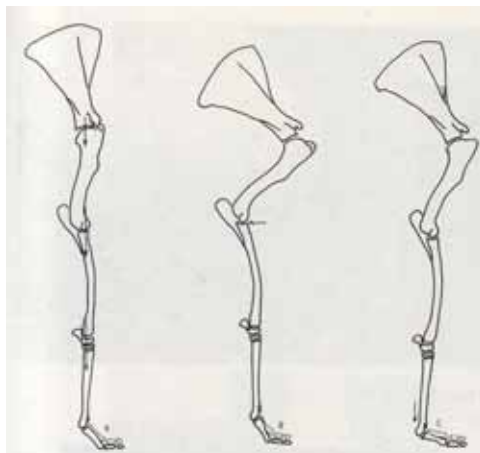
Post Leg (lack of enough angulation)  
Sickle Hocks (excessive angulation)

Down in the pasterns, straight-legged, post-  
legged

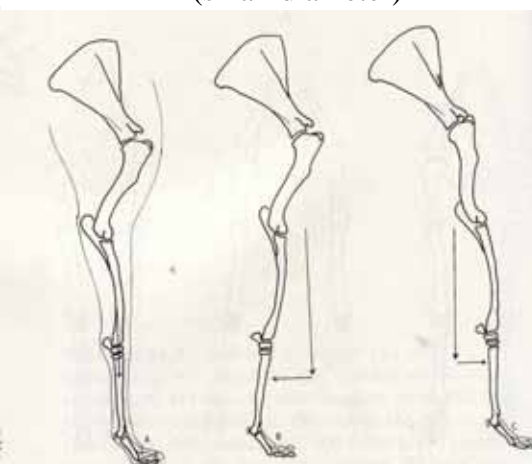
Legs camped forward or behind

Legs too short/too long with body/neck

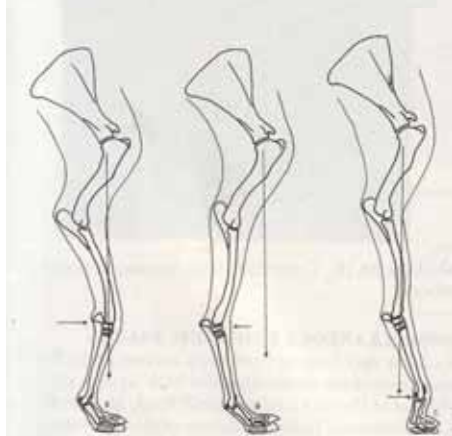
Fine Leg/Ankle Bones  
(small diameter)



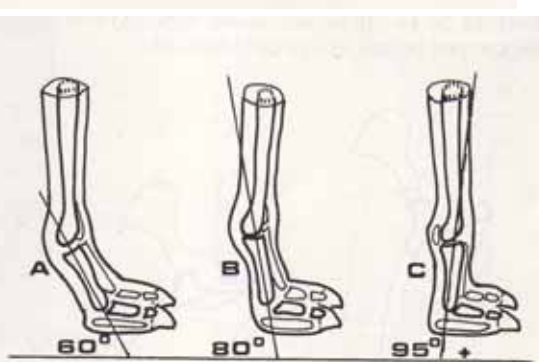
**FIGURE 24.11** Forelimb, lateral view: (A) straight or post leg, (B) excessive angulation of shoulder, (C) hyperextension of the fetlock.



**FIGURE 24.10** Forelimb, lateral view: (A) normal, (B) camped behind, (C) camped forward.



**FIGURE 24.12** Forelimb, lateral view: (A) buck-knee, (B) calf-knee, (C) contracted flexor tendons of fetlock.



**FIGURE 24.14** Diagrams of pastern angulation: (A) appropriate angulation for a llama, (B) appropriate angulation for an alpaca, (C) over at the fetlock (hyperflexion of the fetlock).

## MOVEMENT –

### POSITIVE TRAITS

Correct square foot pattern with rear  
Feet following directly behind front feet  
Balanced even stride in Profile View  
Level Top Line during movement

### NEGATIVE TRAITS

Deviations of front or rear foot  
patterns  
Short Stride/Over-reaching  
Non-Level Top line

## THE SURI EXTERNAL GENITALIA

The External Genitalia should be anatomically correct in size, shape, consistency  
And position for the age of the animal, and have reproductive potential in each sex.  
The female should exhibit a normal size and shaped vulva. Males should exhibit 2 firm testicles  
of appropriate and relatively equal size, shape and position. Both sexes should have 4 teats.  
Umbilicus should be closed.

### **Comparison of Testicular Size**

<b>Age (months)</b>	<b>Size ( LxW ) cm</b>	<b>Age (months)</b>	<b>Size ( L x W ) cm</b>
<b>6</b>	<b>1.0 x 0.4</b>	<i>6</i>	<i>1 X 0.4</i>
<b>12</b>	<b>2.3 x 1.5</b>	<i>12</i>	<i>2.3 X 1.5</i>
<b>18</b>	<b>2.8x 1.5</b>	<i>18</i>	<i>2.8 X 1.9</i>
<b>24</b>	<b>3.3 x 2.2</b>	<i>24</i>	<i>3.3 X 2.2</i>
<b>30</b>	<b>3.6 x 2.4</b>	<i>30</i>	<i>3.6 X 2.3</i>
<b>36</b>	<b>2.6 x 2.4</b>	<i>36</i>	<i>3.6 X 2.4</i>
<b>Sires</b>	<b>3.7 x 2.5</b>	<i>Sires</i>	<i>3.7 X 2.4</i>

### **Bravo, The Reproductive Process of South American Camelids, 2003**

*Sumar 1983, Fowler et al. 1998 and Bravo 2002, Tibary and Vaughn 2006*

Note: Sumar's data: Sires 4.0cm in length X 2.6 cm in width

### POSITIVE TRAITS

Female –  
Vulva Normal Size for Age

Male –  
Testicles Normal Size, Shape  
Placement normal  
Teats – 4 normal

### NEGATIVE TRAITS

Too Small/ Abnormal

Too Small/ Abnormal  
Abnormal placement  
More or Less than 4/ abnormal

## **THE SURI FIBER**

The ideal Suri style fleece will be comprised of fibers without crimp which exhibit a high degree of luster, provide a cool slick handle, and exhibit uniform, independent, well-defined locks throughout the head, neck, body and legs. Uniformity of luster, lock, staple length, fineness and density is important. Suri lock styles exhibiting a continuum of forms including: tightly twisted pencil, curled, straight, flat with twisted tips and curled. All lock styles are equally desirable. The uniform expression of a consistent lock style throughout the fleece takes priority.

### **POSITIVE TRAITS**

Straight Fibers

LUSTER –

High degree of Natural Luster

Luster throughout the entire fleece (inside/outside)

UNIFORMITY –

Uniformity of micron, staple length,

Expression of lock and luster

HANDLE –

Cool, slick

FINENESS –

Fineness, low micron

LOCK –

Well-defined from skin to tip

DENSITY –

Density, compact, heavy

COVERAGE

Full coverage from the head through  
body down the legs to the toes

### **NEGATIVE TRAITS**

Expression of crimp

Chalky, Low degree or lack of luster

Inconsistency of micron, staple length,  
expression of lock

Warm, Fuzzy

Coarse, High micron

Absence of lock definition

Light, airy, voluminous fluffy fleece

Sparsely covered

## Glossary for Suri Network Suri Breed Standard

**Note:** At the end of the Glossary there is a figure of the skeleton of the alpaca for your reference.

**Base Narrow:** When viewing the alpaca from the front or the back, the feet are set too close together. They should be aligned with the shoulder from the front and hip from the rear. With this condition, they are placed medial to the shoulder and hip.

**Base Wide:** When viewing the alpaca from the front or the back, the feet are set too far apart. They should be aligned with the shoulder from the front and hip from the rear. In this condition, they are placed lateral to the shoulder and hip.

**Buck-kneed:** The carpus is bowed forward.

**Calf-kneed:** The carpus is bowed backward.

**Carpal Valgus:** Bowing of the knee (carpus) inward leading to angulation of the lower limbs laterally.

**Carpal Varus:** Bowing of the knee (carpus) outward leading to angulation of the lower limbs medially.

**Cow Hocked:** When viewed from the rear, the hocks of the alpaca are deviated medially (toward the midline).

**Curved Tail:** The tail deviates to the side in a C-shape but has normal coccygeal (tail) vertebrae. The curvature is due to muscular or neural origin.

**Fetlock:** The joint on the front or hind leg below the carpus and hock. It is located between the pastern and the cannon bone.

**Fused Ears:** a condition in which the ear canal is very narrow and the overall ear is smaller than normal.

**Genotype:** the genetic makeup of an organism or group of organisms with reference to a single trait, set of traits, or an entire complex.

**Hock:** the joint in the hind leg above the fetlock joint, corresponding anatomically to the ankle in humans.

**Incisor Malocclusion:**

Brachygnathia: the upper jaw is either too short (superior or upper shortened jaw)

Prognathia: the lower jaw is too long (inferior or protrusion of the lower jaw)

**Kinked Tail:** A deviation of the tail caused by a hemivertebrae (malformed coccygeal (tail) vertebrae) or a C-shaped coccygeal vertebrae.



**Knee** (carpus): The joint between the shoulder and fetlock on the front leg.

**Kyphosis:** When viewed from the side, the spine of the alpaca has a hump in the middle with the shoulders and pelvis lower than the middle of the back.

**Lordosis:** When viewed from the side, the spine of the alpaca has a dip in the middle with the shoulders and pelvis higher than the middle of the back.

**Pastern:** The part of the foot between the fetlock joint and the toes.

**Phenotype:** the appearance of the animal as a result of its genotype and its interaction with the environment.

**Polydactaly:** Multiple toes

**Post-legged:** Less than normal angulation of the rear limb leading to a straight leg.

**Profile:** View of the animal from the side

**Shoulder:** The joint connecting the foreleg with the body.

**Sickle Hocked:** When viewed from the side (profile), excessive angulation of the hock joint.

**Splayed toes:** A condition in which the toes are spread apart and point laterally and medially.

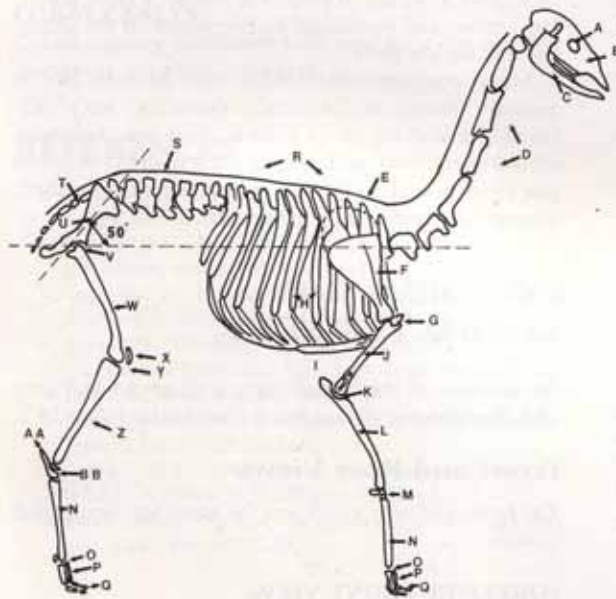
**Straight-legged:** Less than normal angulation of the front limb leading to a straight leg.

**Syndactaly:** Toes fused together

**U-Neck Set:** a conformational fault in which the neck dips in a “u” shape at the junction of the neck and shoulders.

**Withers:** the highest part of the back at the base of the neck

**Wry Face:** a condition which occurs when the upper jaw (maxilla) is deviated laterally which leads to a crooked nose. The deviation can be very slight to a 90 degree deformity.



**FIGURE 24.2** Skeleton of alpaca: (A) orbit, (B) maxilla, (C) mandible, (D) cervical vertebrae, (E) withers, (F) scapula, (G) shoulder joint, (H) ribs, (I) sternum, (J) humerus, (K) elbow, (L) radius, (M) carpus, (N) metacarpus, (O) fetlock, (P) pastern bones, (Q) P-3, (R) thoracic vertebrae, (S) lumbar vertebrae, (T) coccygeal vertebrae, (U) pelvis, (V) hip joint, (W) femur, (X) patella, (Y) stifle, (Z) tibia, (AA) tuber calcis, (BB) tarsus.

The Suri Network would like to thank Dr. Murray Fowler for his permission to use the figures in the Suri Breed Standard. All figures used were from the reference listed below:

Fowler, ME: *Medicine and Surgery of South American Camelids*. Ames, Iowa: Iowa State University Press 292, 518-521; 1998.