

# Glossary of Alpaca Terms

If you are new to the alpaca lifestyle, you may not be familiar with all the terminology you hear from other owners, or read online. The more you know, the easier it is to navigate and improve your program. Welcome to the Alpaca Culture glossary.

Terms touch on a sampling of many subjects central to the alpaca community: breeding, fiber, logistics, veterinary terms and genetics.

## A

**Aggregate breeding value:** Also sometimes called net merit, this is the breeding value of an animal for a combination of traits.

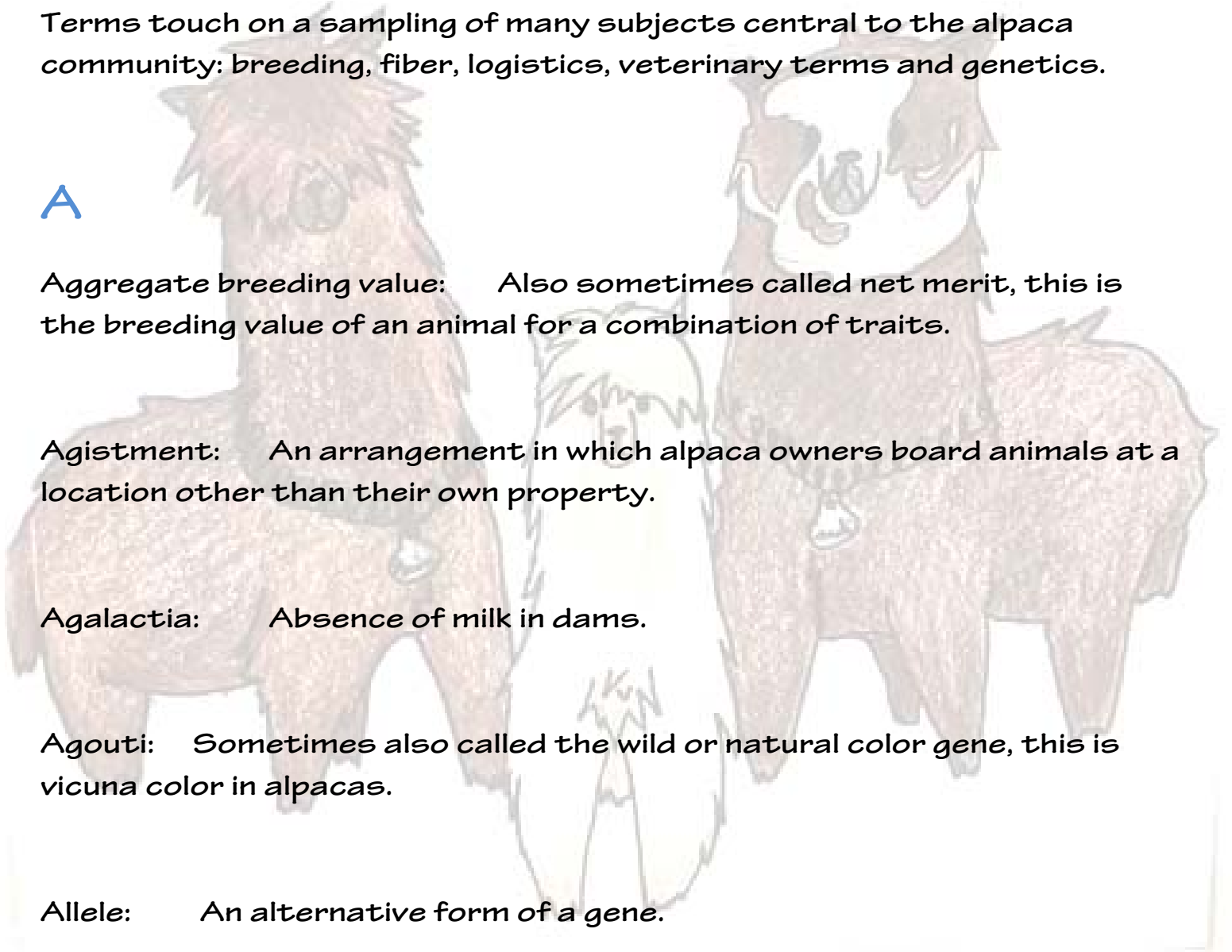
**Agistment:** An arrangement in which alpaca owners board animals at a location other than their own property.

**Agalactia:** Absence of milk in dams.

**Agouti:** Sometimes also called the wild or natural color gene, this is vicuna color in alpacas.

**Allele:** An alternative form of a gene.

**Altiplano:** Located around Lake Titicaca this is the high plateau area of southern Peru and northwestern Bolivia. The natural habitat of alpacas.



**AOBA:** Alpaca Owners and Breeders Association - North America's largest Alpaca association.

**ARI:** Alpaca Registry, Inc. - The largest alpaca registry in North America. Membership is required to show animals at an AOBA event.

**Apron:** The section of fiber under the alpaca's neck and chest area. Fibers here vary in size and they may be coarse and medullated. Apron fiber should not be mixed with finer fiber.

**Artificial insemination:** Semen is collected from stud males and inserted fresh or frozen into females.

**B**

**Backcrossing:** (1) Mating a hybrid to a purebred of a parent breed or line. (b) Mating an individual (purebred or hybrid) to another animal (purebred or hybrid) when the two animals have one or more ancestral breeds or lines in common.

**Bale:** A variable sized sack, square, or package into which fiber is compressed.

**Beater:** A toothed or spiked metal roller that is part of a cleaning or opening machine used to process fiber into yarn.

**Base population:** The population of animals whose parents are either unknown or ignored for the purposes of inbreeding and relationship calculation. Typically, this term applies to the animals appearing at the back of the pedigrees of the original individuals in a herd.

**Basic colors:** Seven of the total twenty-two natural colors of alpaca. Black, white, light fawn, fawn, silver gray, brown and rose gray.

**Batt:** A sheet of carded fiber, approximately one half to one inch thick and several feet long. Strips can be torn off and spun from a batt.

**BC1:** Backcross one. The first generation of crosses between hybrids and purebreds of a parent breed or line.

**Berserk male:** A male who was given too much affection by owners as a cria and shows erratic behavior and no fear of humans as an adult.

**Biological type:** A classification of animals with similar genotypes. Examples: prolific wool types (sheep), large dual-purpose types (cattle), heavy draft types (horses) and tropically adapted types (many species).

**Biotechnology:** Practicality married with scientific knowledge. Often refers to manipulating, locating, identifying or comparing genes. Also refers to reproductive technologies, for example artificial insemination.

**Blanket:** Alpaca fleece of the highest quality, which starts at the shoulder, runs along the back and down each side and meets in the

medullated belly fiber. Does not include belly, neck, leg, chest or britch. The image of a horse's saddle blanket is the origin of the term.

**Blend:** A finished textile that is made up of two or more different fibers, variants of the same fiber or different grades and colors of the same fiber.

**Bloodline:** Refers to pedigree.

**Blowout factor:** How much a given animal's fiber diameter increases (thickens) with age.

**Bradford System:** One of the three main methods of spinning worsted yarn in which longer fibers are used to produce very sleek, compact yarns.

**Breaking Length:** Measures the breaking strength of a yarn equal to its breaking load and equal to the tensile stress at rupture of the yarn.

**Breed:** A race of animals within a species. Same breed individuals usually have similar identifying characteristics and a common origin.

**Breeding objective:** A general goal for a breeding program or a definition of what constitutes the best animal and herd.

**Breed true:** Alpacas breed true if parents with a particular, simply inherited phenotype produce young with of that same phenotype only.

**Breed type:** The overall look of an alpaca.

**Breeding value:** The importance of an individual as a (genetic) parent.

**Bred female:** A pregnant alpaca.

**Breeding:** Ovulation as a result of mating between sire and dam.

**Brushing:** A finishing process for woven or knit fabrics in which abrading elements (often brushes) are used to raise a nap.

**Bundled staples:** A group of small staples that together form a larger staple. The formation of the small staples is a result of arrangement and density of the skin follicles. Bundling is an indicator of a dense fleece, due to the evenness of follicle size and consistency of shape in the skin.

**Burning:** Removing vegetable matter from alpaca fiber during processing using chemicals.

**BVD Bovine Viral Diarrhea:** A cattle disease that has negatively affected the North American alpaca community since 2001. It is typically an acute (short term) illness that the healthy alpacas immune systems can eradicate. However, pregnant females that contract the virus will either abort the fetus, or if it lives it may be persistently infected with BVD and become a carrier of the virus.

## C

**Camelidae:** Camelids, including camels, llamas, guanacos, and vicunas. Alpacas are part of this larger biological family (lama pacos).

**Card:** A mechanical or motorized device that brushes fibers into a batt.

**Carding:** The final cleaning process for alpaca fiber, done by hand or machine. The last step before spinning.

**Character:** Overall evaluation of an alpaca fleece after examining handle, staple length, fineness, density, luster, and softness.

**Chacu:** A wild vicuña drive and subsequent release that originated with the Incas and is still practiced ritually in Peru.

**Characteristic:** A phenotypic trait, such as crimp or fineness.

**Chromosome:** One of a number of long strands of DNA and proteins present in the nucleus of every cell.

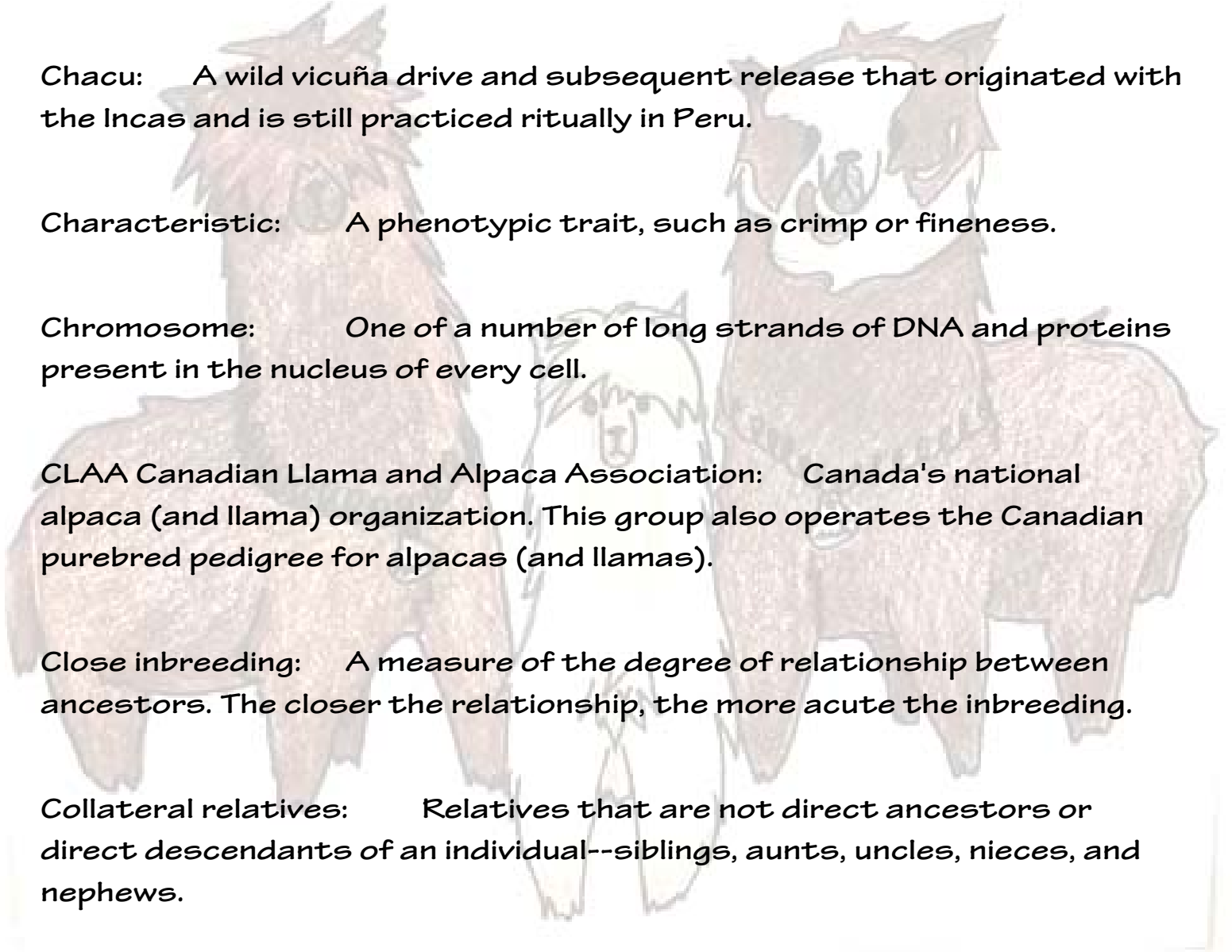
**CLAA Canadian Llama and Alpaca Association:** Canada's national alpaca (and llama) organization. This group also operates the Canadian purebred pedigree for alpacas (and llamas).

**Close inbreeding:** A measure of the degree of relationship between ancestors. The closer the relationship, the more acute the inbreeding.

**Collateral relatives:** Relatives that are not direct ancestors or direct descendants of an individual--siblings, aunts, uncles, nieces, and nephews.

**Color genes:** Genes that determine an alpaca's coat color.

**Comb:** A means of aligning alpaca wool fibers by hand or machine combing to prepare it for spinning into worsted yarn.



**Conformation:** The shape or contour of the alpaca's body, or an appropriate arrangement, or balance of all body parts.

**Core Sampling:** Gathering samples of fiber for testing from bales by inserting a hollow tube into each.

**Core Spinning:** A filament (usually elastic under tension) is covered with a sheath of staple fibers to produce stretchy yarn. This yarn (and fabric made from it) has characteristics of the sheath fiber plus the advantage of stretch and recovery.

**Corrective mating:** A union of alpacas that is intended to correct faults such as mating a dam with a bad bite to a stud with a well-aligned bite.

**Coverage:** A term for abundant fiber growth in areas other than the primary blanket, such as on the ears (cap) and the lower legs.

**Covering Sire:** A term used to describe the male that a female has been mated to. Primarily used during the process of mating for record keeping and when the female is confirmed pregnant. Conscientious record keeping is key to ensure the accurate identity of the covering sire, so the resulting cria's parentage can be correctly traced.

**Cria: (Cre-a)** A camelid less than one year old, derived from Spanish terms for creation and nursing.

**Crimp:** An even, corrugated undulation along the length of a fiber or lock. A higher number of crimps per inch often indicates a finer fiber.

**Crinkle:** The even, corrugated wave seen in a single fiber of huacaya fleece.

**Culling:** Determining which animals will not be bred in a herd.

**Curl:** Spiraling, lustrous ringlets along the length of suri fiber that give the coat a “drenched” look.

**Cuticle:** The outer layer of cells of a fiber, made evident under a microscope. They are hard, flattened, do not fit together evenly and have tips that point away from the fiber shaft, forming serrated edges. These serrated edges cause the fibers to grip together during processing and manufacturing. See also scales.

**D**

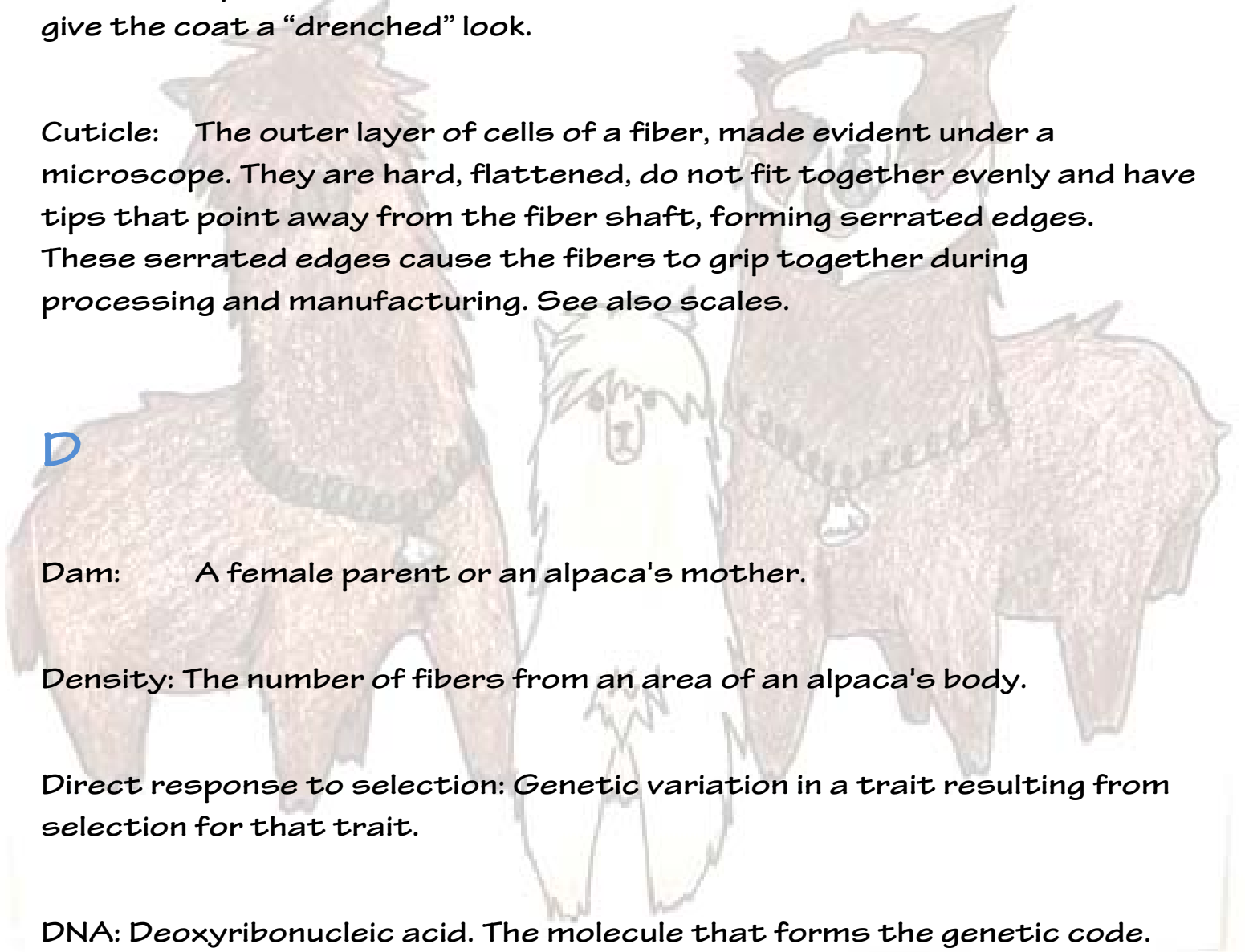
**Dam:** A female parent or an alpaca's mother.

**Density:** The number of fibers from an area of an alpaca's body.

**Direct response to selection:** Genetic variation in a trait resulting from selection for that trait.

**DNA:** Deoxyribonucleic acid. The molecule that forms the genetic code.

**Dominance:** The property of a gene (or allele) when it suppresses the expression, or dominates the effects, of the recessive gene (or allele).





**Drafting:** The process of drawing out a strand of material by pulling it apart. Commercially, this is done between rollers and by hand in hand spinning.

**Dual-registered:** A purebred alpaca that belongs to both the Canadian (CLAA) and American (ARI) pedigree registries.

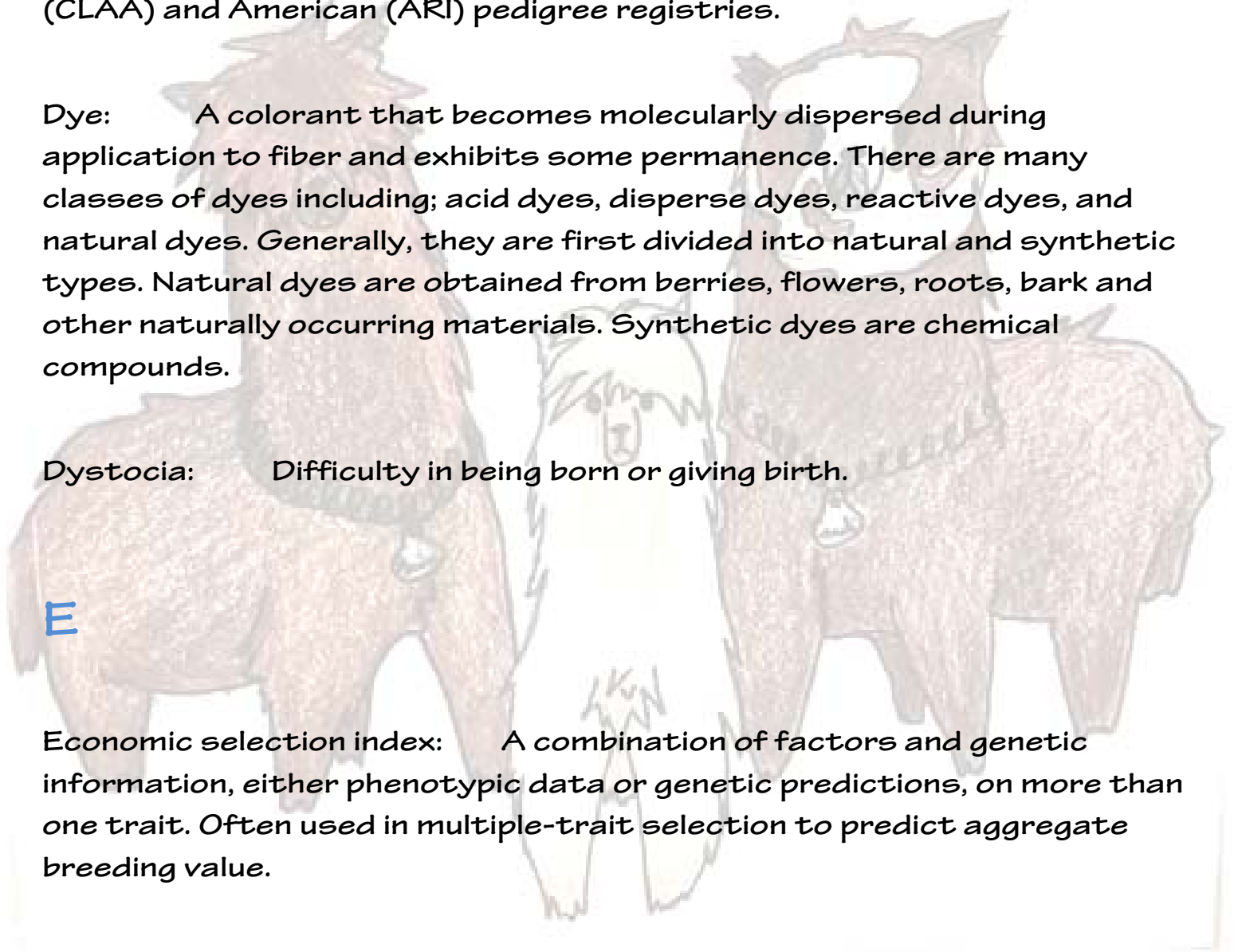
**Dye:** A colorant that becomes molecularly dispersed during application to fiber and exhibits some permanence. There are many classes of dyes including; acid dyes, disperse dyes, reactive dyes, and natural dyes. Generally, they are first divided into natural and synthetic types. Natural dyes are obtained from berries, flowers, roots, bark and other naturally occurring materials. Synthetic dyes are chemical compounds.

**Dystocia:** Difficulty in being born or giving birth.

**Economic selection index:** A combination of factors and genetic information, either phenotypic data or genetic predictions, on more than one trait. Often used in multiple-trait selection to predict aggregate breeding value.

**Effective population size:** The size of a population as indicated by its rate of inbreeding.

**Egg cell:** Also referred to as a gamete.



E

**Embryo transfer:** A biotechnology technique in which embryos from donor females are collected and transferred into recipient females.

**Environmental effect:** The effect that non-genetic or external factors have on animal performance.

**Environmental trend:** Change in the average performance of a population over time, caused by environmental effects.

**Estimated breeding value:** A prediction of breeding value. Also see breeding value.

**Extension locus:** Area on the chromosome where color occurs or is modified.

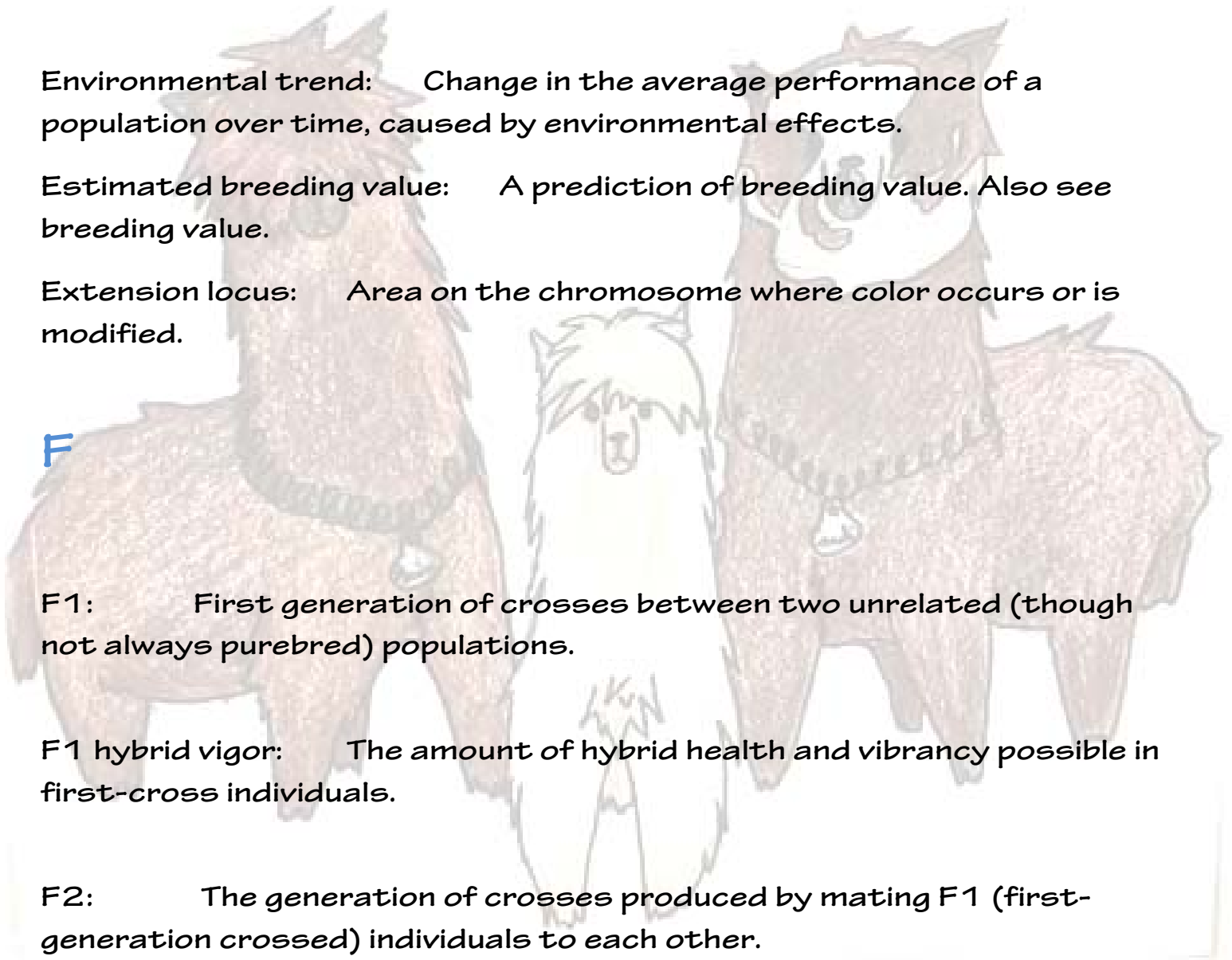
**F**

**F1:** First generation of crosses between two unrelated (though not always purebred) populations.

**F1 hybrid vigor:** The amount of hybrid health and vibrancy possible in first-cross individuals.

**F2:** The generation of crosses produced by mating F1 (first-generation crossed) individuals to each other.

**Family:** A group of related individuals within a population, most often applied to half-sib and full-sib families, but which can be applied to more distantly related groups, including descendants of a particular ancestor.



**Fast Color:** A dye that is stable to color destroying agents, such as sunlight, perspiration, washing, abrasion, and wet and dry pressing.

**Felt:** An ancient technique that produces a non woven sheet of matted material, which is most frequently made from wool, hair or fur created by the entanglement of a mass of fibers that takes place when heat, moisture and pressure are combined.

**Fertility:** The ability of a male to impregnate a female or a female to conceive.

**Fiber:** The fleece of the alpaca, also known as wool. A unit of matter characterized by having a length at least 100 times its diameter or width. The fundamental component used in making textile yarns and fabrics.

**Fineness:** A measure, in microns, of the diameter of individual alpaca fibers., most often expressed as an average for a representative sample. The diameter of natural fibers measured in microns and generally varying from 20 to 36 microns, with the lower numbers indicating finer fibers.

**Fitness:** (a) The ability of an individual (and its phenotype and genotype) to contribute offspring to the next generation. (b) The number of offspring an individual animal produces, not just its ability to be selected.

**Follicle:** The skin structure from which hair or wool fiber grows.

**Fitness trait:** A trait arrived at through natural selection. Fitness traits point to an animal's ability to survive and reproduce.

**Fleece:** The entire wool coat, sheared from an animal at one time, usually once a year.

**Fleece weight:** The weight of an entire fleece, measured at the same time each year.

**Fulling:** A finishing process for fiber where the woven or knitted cloth is subjected to heat, moisture and friction, causing it to shrink considerably in both directions and become compact and solid. In heavily fullled fabrics, both the weave and the yarn are obscured, resulting in an appearance of felt.

## G

**Gamate:** A sperm or egg; a sex cell.

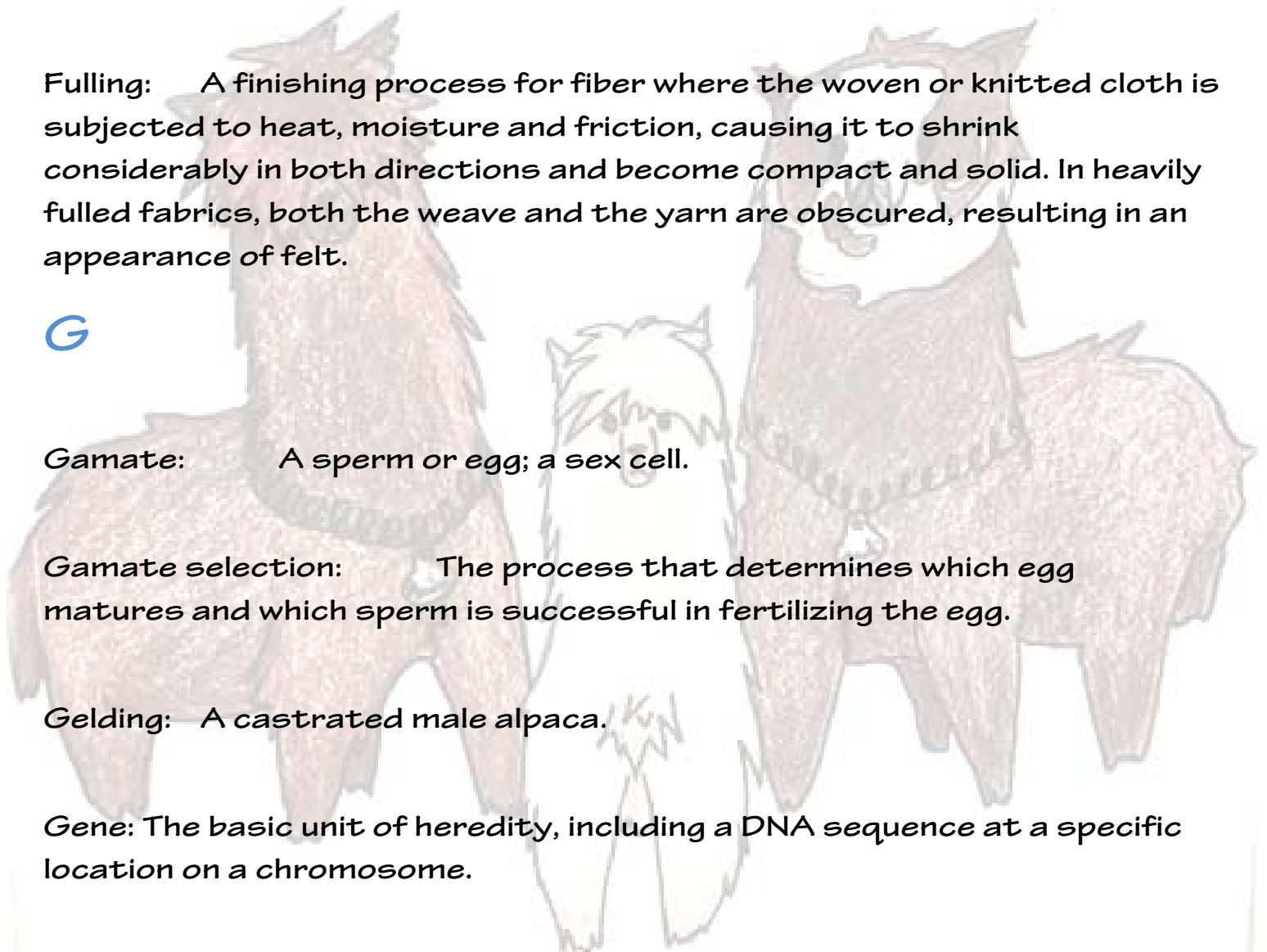
**Gamate selection:** The process that determines which egg matures and which sperm is successful in fertilizing the egg.

**Gelding:** A castrated male alpaca.

**Gene:** The basic unit of heredity, including a DNA sequence at a specific location on a chromosome.

**Gene frequency:** The relative frequency of a particular allele in a population. Also referred to as allelic frequency.

**Gene map:** A diagram showing the chromosomal locations of specific genetic markers and genes. Also a linkage map or chromosome map.



**Generational interval:** (a) The amount of time required to replace one generation with the next. (b) In a closed population, the average age of parents when their offspring are born.

**Genetic correlation:** (a) An analysis of the consistency and reliability of the relationship between breeding values for one trait and breeding values for another trait. (b) A measure of the production of change in more than one trait (pleiotropy).

**Genetic marker:** A detectable DNA fragment or gene used to identify alleles at a linked locus.

**Genetic merit:** The accumulative positive genotype of an animal or herd which can be passed onto offspring.

**Genetic prediction:** The field of academic alpaca breeding concerned with statistical procedures, measurement of data and computational techniques for predicting breeding and other values.

**Genetic trend:** Changes in the breeding value of a population over time.

**Genetic variation:** Fluctuations in breeding values within a population for a trait.

**Genotypic value:** The effect of an individual's genes (alone and in combination) on its performance for a trait.

**Genotype:** The entire genetic constitution of the individual animal.

**Grading:** The sorting and classification of fibers according to staple length, strength, evenness and fineness.

**Grading up:** (a) A mating system designed to create a purebred population by mating successive generations of non-purebred females to purebred sires. (b) A mating system designed to convert a population from one breed to another by mating successive generations of females descended from the first breed to sires of the second breed. Also referred to as top-crossing.

**Greasy:** A commercial term for unwashed alpaca wool.

**Guanaco:** *Lama guanicoe*, a wild member of the New World camelidae family.

**Guard hair:** Coarse, medullated fiber. A second coat of fiber found in llamas, vicuna, guanacos and sometimes alpacas. Also called kemp.

H

**Hair fiber:** Specialty fiber obtained from an animal other than a sheep, usually from the goat and camel families (mohair, cashmere, angora, llama, alpaca, vicuna and guanaco). These products, except angora, are included in the term "wool."

**Hembra:** Female alpaca or animal.

**Handle:** The way an alpaca fiber feels when touched; often used as a synonym for "softness."



**Hank:** A definite length of textile material that varies according to the material. A hank of wool is 560 yards, cotton and silk is 840 yards and linen is 300 yards.

**Herdsire:** A male alpaca with genetic characteristics desirable for breeding into a herd.

**Heritability:** A measure of the strength of the relationship between performance (phenotypic values) and breeding values for a characteristic in a population.

**Histogram:** A graphical representation, similar to a bar chart in structure that organizes a group of data points into user-specified ranges. Used to quantify alpaca fiber characteristics. The histogram on such a report depicts the measurement of 2000 fibers in scale.

**Humming:** A sound alpacas make when they are happy, concerned, uncomfortable or curious. Different styles of hums indicate different emotions.

**Huacaya:** A breed of alpaca characterized by a well-crimped fleece that grows perpendicular to the skin.

**Huarizo:** A mostly derogatory term most often used to describe a llama-alpaca cross. Characterized by weak, medullated fiber and poor breed type. A crossbred animal.

**Hybrid:** An individual that represents a combination of species, breeds within species, or lines within breeds.

**Hybrid vigor:** An increase in the overall health of hybrids over that of purebreds, most noticeably in traits such as survivability and fertility.

**Hyperthermia:** Body temperature that exceeds the normal range.

**Identical by descent:** Two genes that are exactly the same as a single ancestral gene.

**Identification test:** A procedure for determining variety of fibers, fabric construction, yarn construction, or finish and coloring of textiles. Physical, chemical, microscopic and other methods are used.

**Impurity:** Any undesirable or extraneous material present in a fleece or textile or a product made from fiber.

**Inbreeding:** The mating of relatives.

**Indicator trait:** A characteristic that may or may not be important in itself, but is selected for as a way of improving another genetically correlated trait.

**Indirect selection:** Selection for one trait as a means of improving a genetically correlated trait.





## K

**Kemp:** Medullated fiber or guard hair.

**Keratin:** A protein substance that is the chief component of woolen fibers.

**Knitting:** A method of constructing fabric by interlocking a series of loops of one or more yarns. Can be done by hand, as is traditional, or by hand.

**Kush:** A resting position in which an alpaca is sitting down with its legs bent under its body.

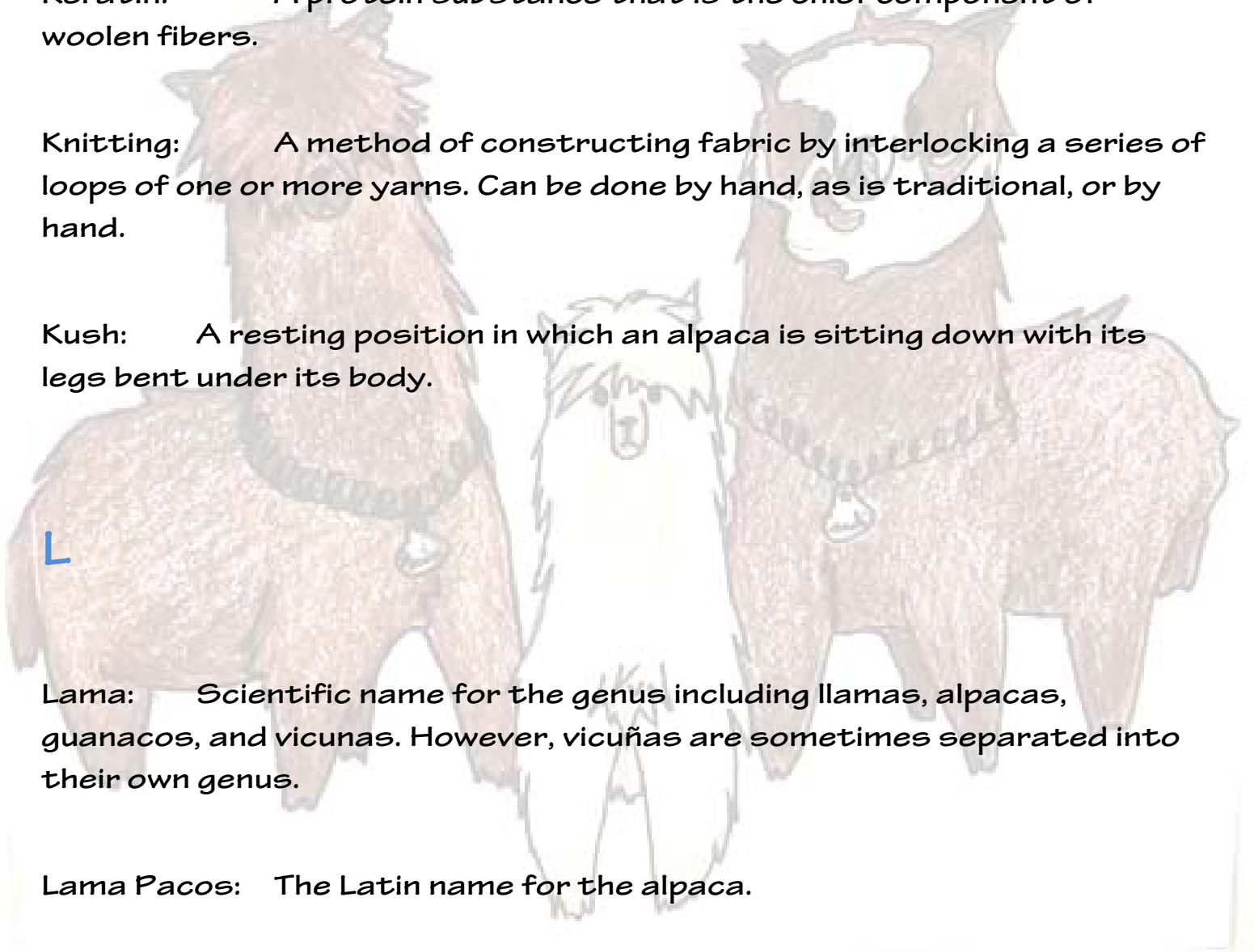
## L

**Lama:** Scientific name for the genus including llamas, alpacas, guanacos, and vicunas. However, vicuñas are sometimes separated into their own genus.

**Lama Pacos:** The Latin name for the alpaca.

**Line:** A group of related animals within a breed.

**Linebreeding:** The mating of individual animals within a particular



line designed to maintain a substantial degree of relationship to a highly regarded ancestor or group without causing high levels of inbreeding.

**Linecrossing:** Mating of herd sires of one line or line combination to dams of another line or line combination.

**Live Birth:** Many alpaca sale contracts involving a bred female guarantee that the cria will be alive and survive for a stated minimal amount of time, often 48 hours.

**Llama:** A domesticated species of South American camelid raised for fiber production, meat and packing.

**Loft:** Sometimes used synonymously with fluffiness, loft is the springiness in fiber as it returns to normal after being squeezed.

**Loom:** A device or machine for weaving cloth.

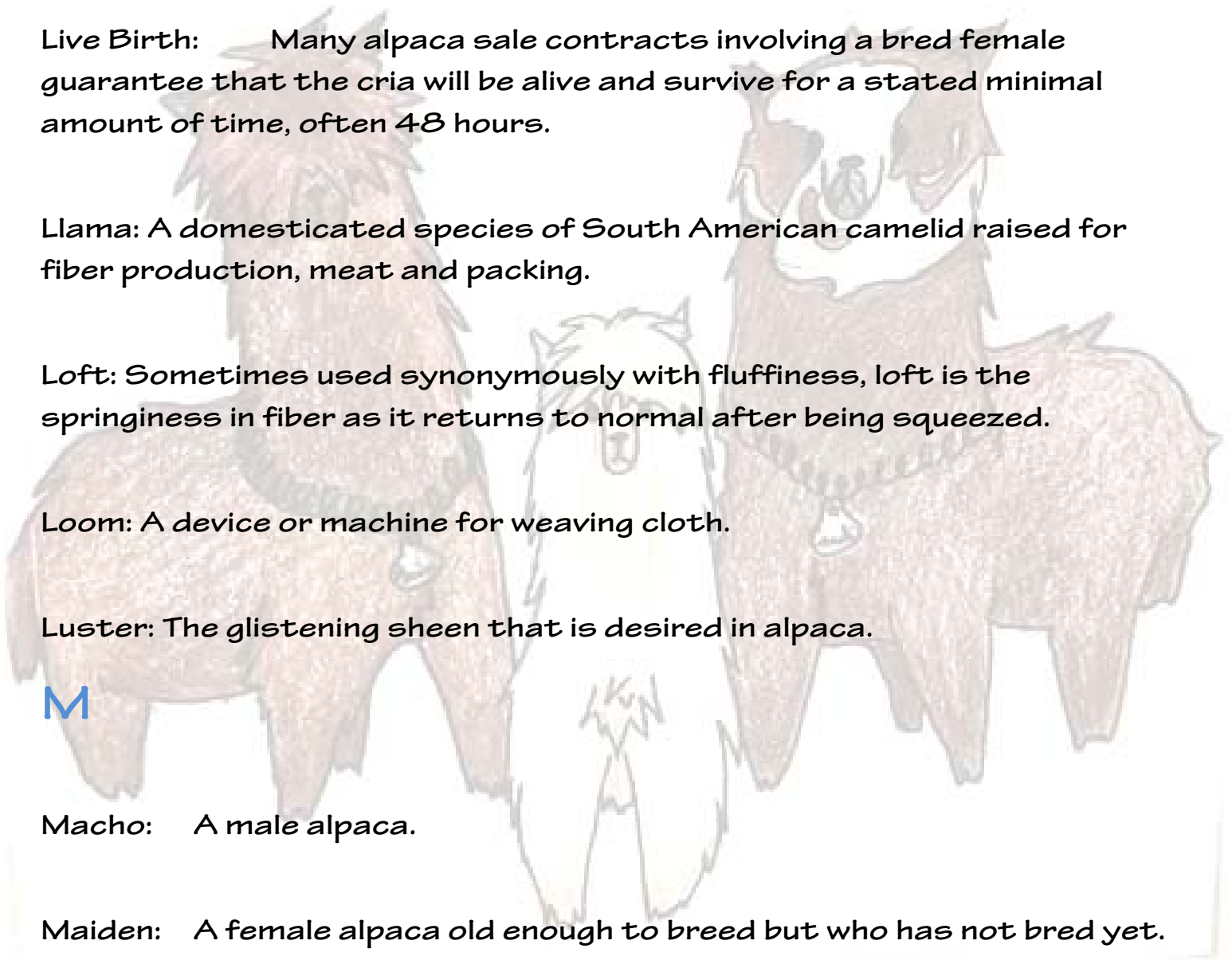
**Luster:** The glistening sheen that is desired in alpaca.

**M**

**Macho:** A male alpaca.

**Maiden:** A female alpaca old enough to breed but who has not bred yet.

**Maternal trait:** A characteristic especially important in breeding females. May include fertility, freedom from dystocia, adequate milk production and ability to mother well.



**Mean fiber diameter:** The average diameter or thickness of a group of fibers from an alpaca.

**Medulla:** The hollow core often found in coarse guard hair or kemp fibers in the chest and underbelly of the fleece.

**Medullation:** How much medullated hair a fleece contains.

**Melanin:** The pigment in skin that determines coat and skin color.

**Micron:** A measurement of fiber diameter, equal to 1/25,000 of an inch, or 1/1000th of a millimeter, that refers to the fineness of a fiber. The smaller the micron, the finer the fiber.

**Multicolor:** An individual that incorporates more than one color in its fleece.

**Multiple sire pasture:** A breeding pasture or pen housing more than one sire at a time.

N

**Natural Dye:** Dye obtained from substances such as roots, bark, wood, berries, lichens, insects, shellfish and flowers.

**Natural Fiber:** Fiber obtained from animal, vegetable or mineral sources, as opposed to those regenerated or synthesized from chemicals.

**Nep:** Small knot of tangled fibers, usually short, dead and immature fiber.

**Natural selection:** Term first coined by Darwin to describe selection that occurs in nature independent of deliberate human control.

**Noil:** Short fibers removed during combing in yarn making.

O

**Open female:** An animal not bred currently.

**Orgling:** The sound a male alpaca makes while breeding that induces ovulation in the female.

P

**Paco vicuña:** A crossbred or hybrid vicuna and alpaca mix.

**Parturition:** The process of giving birth, also called birthing.

**Paternal breed:** A breed that stands out in terms of paternal traits.

**Paternal trait:** Characteristics received or inherited through the male alpaca.



**Pedigree:** A recorded genealogy or list of an alpaca's ancestors. Also a registered or recorded known line of descent.

**Pedigree relationship:** Kinship relationships between animals, such as full-sibs, half-sibs, and parent-offspring relationships.

**Pet Male:** A male alpaca whose genetic characteristics are not considered desirable for breeding. Often gelded at between nine and twelve months old.. Also called "fiber boys."

**Phenotype:** As determined both genetically and environmentally, the entire physical, biochemical, and physiological makeup of an individual alpaca.

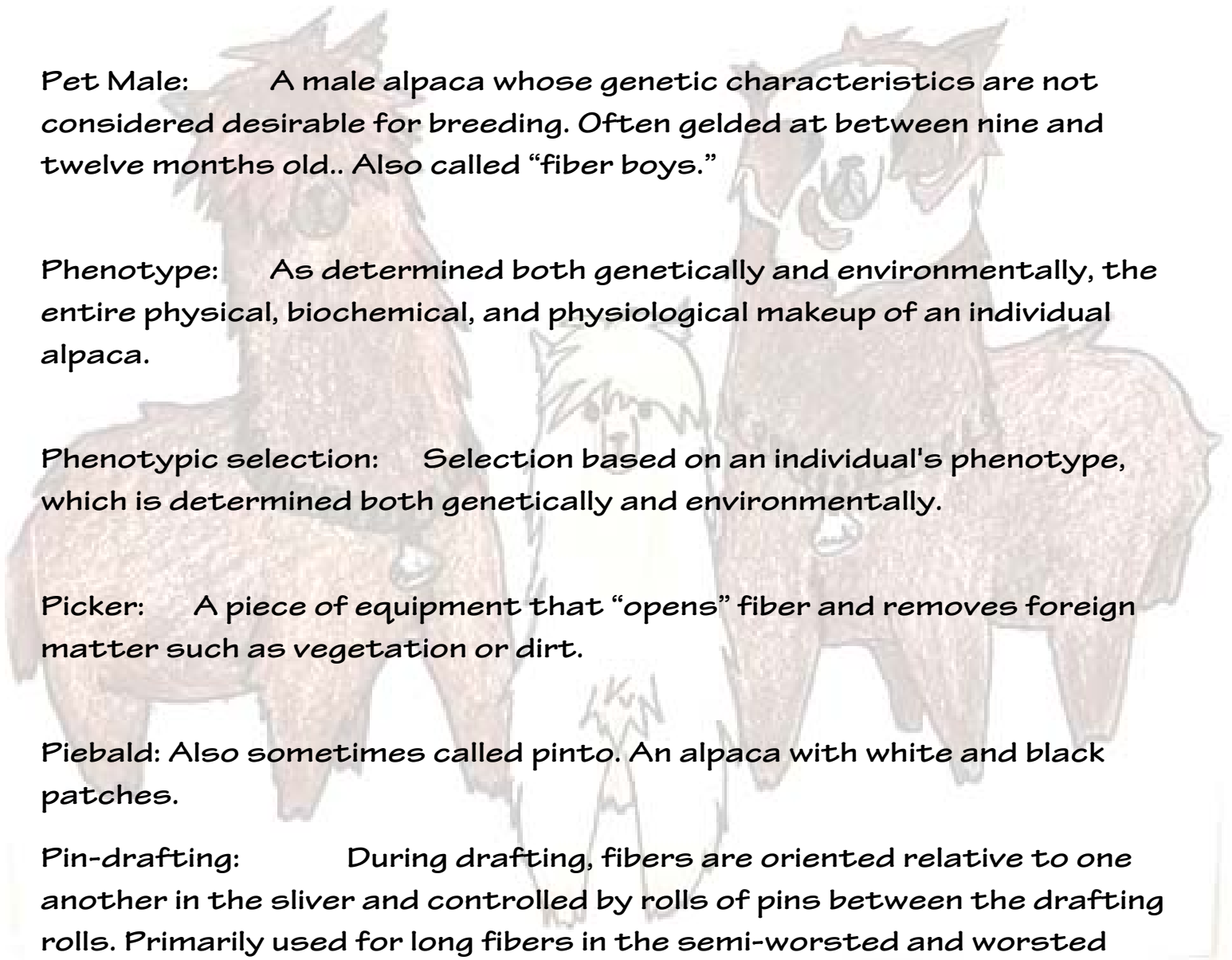
**Phenotypic selection:** Selection based on an individual's phenotype, which is determined both genetically and environmentally.

**Picker:** A piece of equipment that "opens" fiber and removes foreign matter such as vegetation or dirt.

**Piebald:** Also sometimes called pinto. An alpaca with white and black patches.

**Pin-drafting:** During drafting, fibers are oriented relative to one another in the sliver and controlled by rolls of pins between the drafting rolls. Primarily used for long fibers in the semi-worsted and worsted spinning systems.

**Pinto:** A two-colored animal with by large patches of colored wool.



**Ply:** One of any number of single yarns twisted together to form a yarn or to twist together two or more single yarns to form another yarn or cord.

**Polygenic trait:** A trait affected by many genes with no single gene with an over-riding influence.

**Population:** The term can refer to a breed, an entire species, a single herd or flock, or even a small group of animals within a herd. A group of intermating alpacas.

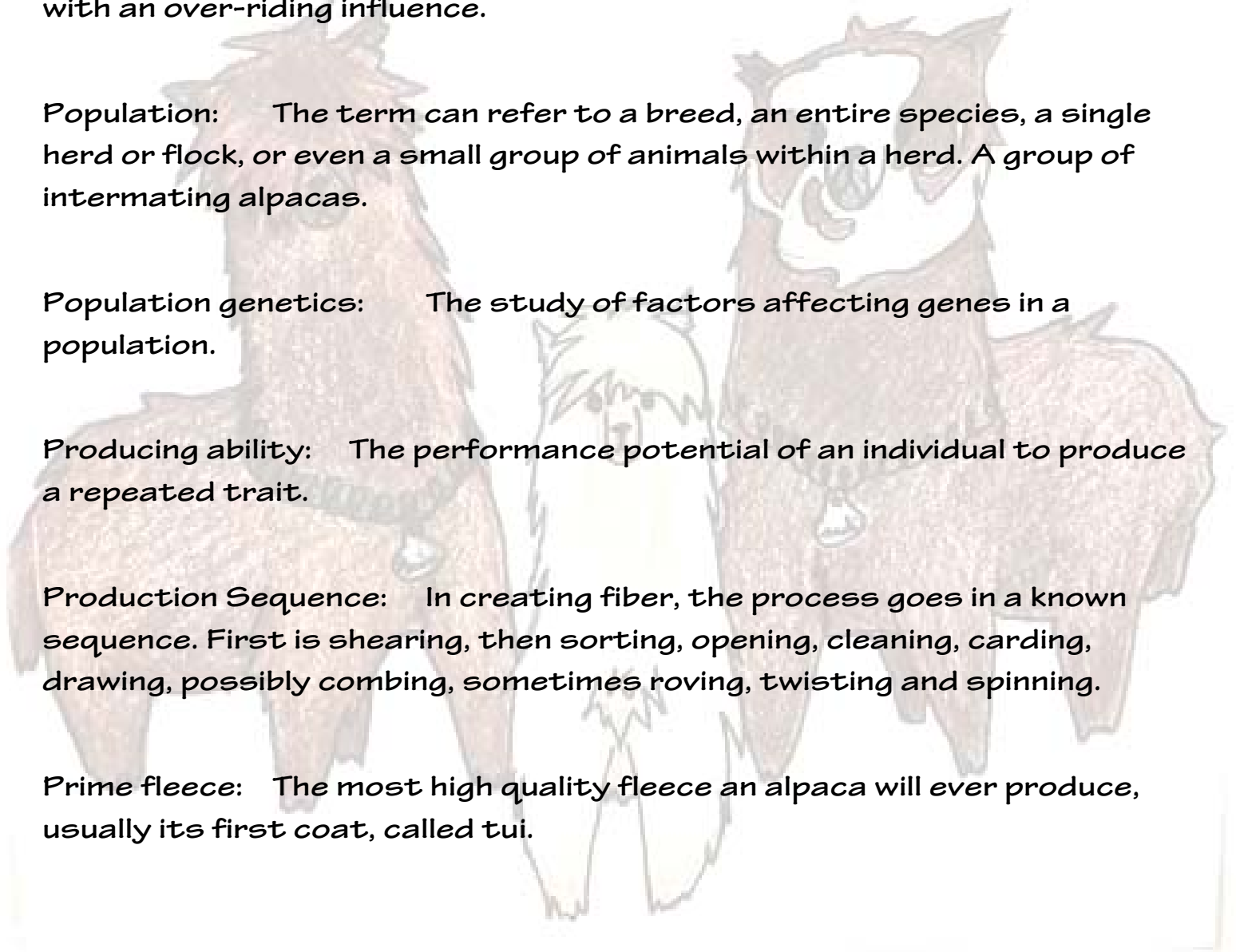
**Population genetics:** The study of factors affecting genes in a population.

**Producing ability:** The performance potential of an individual to produce a repeated trait.

**Production Sequence:** In creating fiber, the process goes in a known sequence. First is shearing, then sorting, opening, cleaning, carding, drawing, possibly combing, sometimes roving, twisting and spinning.

**Prime fleece:** The most high quality fleece an alpaca will ever produce, usually its first coat, called tui.

**Pronking:** A verb that describes alpacas' version of skipping. Much like hopping around with all four feet hitting the ground at the same time. Alpacas do this when they are happy, most often around dusk. Cria are most likely to pronk but older and even very pregnant alpacas will pronk.



**Protein Fiber:** An animal fiber composed of protein, including naturally occurring animal fibers as alpaca, wool, silk, llama and other hair and fur fibers.

**Puna:** The high, barren tundra zone of the Andes Mountains where alpacas live naturally.

**Pureblood:** An animal of unmixed ancestry, bred from members of a recognized type without a mixture of other blood over many generations.

**Purebred:** Entirely of one recognized breed or line. Not crossbred.

**R**

**Rebreeding:** A standard portion of sales agreements for many bred females. The seller offers rebreeding (usually free) to his sire in the event that the cria does not survive long enough to satisfy the live birth section of the agreement. Can include a free or reduced-fee rebreeding of the mother after the birth of the cria.

**Resilience:** The ability of fiber or yarn or a garment to recover to its original shape and size after removal of the force that caused the deformation. Fibers exhibit the quality to spring back to its original state after being crushed or wrinkled. Also sometimes referred to as memory.

**Rejects:** Unacceptable fiber. Reasons range from poor color, tenderness, seeds, burrs, kempiness, stains, lumps and tufts.

**Reference sire:** Sires that father offspring in all the cooperating flocks. Because the cria of the reference sires can be compared with the offspring of any other sires, the best males in the whole of the group breeding scheme: a) can be identified b) can become available to the program as a whole; and 3) can be used to breed the next generation of sires.

**Replacement rate:** The pace at which newly selected animals replace existing parents in a population.

**Registry:** An alpaca information storage and retrieval center. Registries record and maintain pedigree data, registry numbers, blood typing, and other vital information on registered alpacas.

**Roan:** A coat color made up of by a fairly uniform mixture of colored fibers. For example, the coat of a silver alpaca is actually made up of intermittent white and black fibers.

**Roving:** Fleece that has been cleaned and carded, then drawn out into a twisted roll of fiber. Roving is then spun into yarn or used as-is for felting or making latch-hooked items like rugs. Also called "rove."

## S

**Scouring:** Cleaning raw wool or fiber to remove impurities like dirt, sweat, and grease by washing with soaps or with chemicals.



**Second cut:** Caused by re-shearing areas not sheared to the skin the first time - considered careless shearing. This diminishes the value of a fleece.

**Selection criteria:** Phenotypic values or information that are the reasons for breeding selection decisions.

**Shearing:** The once-a-year harvest of alpaca fiber. Shearing is normally done in mid-spring in order to help cool the alpaca through the summer and allow the coat time to grow back before the cold winter.

**Shear:** To remove an alpaca's fleece (preferably in one large piece or blanket) by hand or (most often) with electric shears.

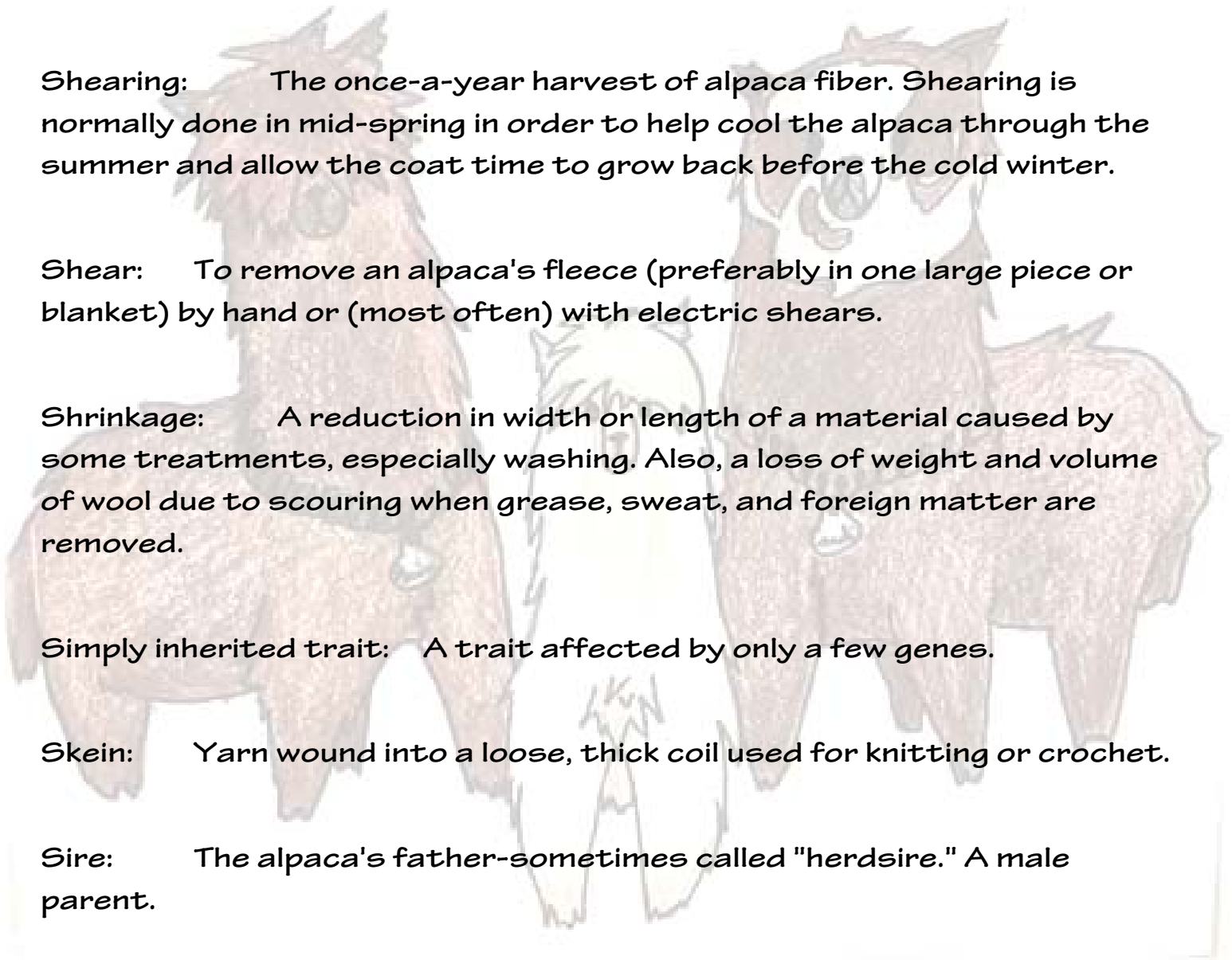
**Shrinkage:** A reduction in width or length of a material caused by some treatments, especially washing. Also, a loss of weight and volume of wool due to scouring when grease, sweat, and foreign matter are removed.

**Simply inherited trait:** A trait affected by only a few genes.

**Skein:** Yarn wound into a loose, thick coil used for knitting or crochet.

**Sire:** The alpaca's father-sometimes called "herdsire." A male parent.

**Sire summary:** A list of genetic predictions and other useful information about the sires in a herd.



**Spinning:** The entire process of making yarn from fiber. The final step in the production of yarn. Also the twisting of the sliver or roving.

**Skewbald:** Pinto. An alpaca with white and brown patches.

**Skirt:** A verb for the process of removing contaminants from a shorn alpaca fleece by hand.

**Specialty fibers:** Fleece and fleece products of the goat and camel families. Mohair, cashmere, angora, alpaca, vicuña, guanaco, llama, and camel.

**Spinning:** The process of twisting fiber into yarn either with a spinning wheel, drop spindle or through the use of high-tech commercial machinery.

**Standard Deviation (SD):** The amount of variation from the average within a single set of data. The greater the standard deviation, the greater the difference between the highest and lowest values within the sample.

**Staple length:** The length of a lock of shorn alpaca wool.

**Staple:** An organized group or cluster of individual fibers of alpaca fiber. A large number of staples make up a fleece.

**Stud:** A male alpaca used for breeding progeny.

**Suri:** An alpaca type, known for long "pencils" of non-crimped fiber



resembling dreadlocks. Its locks of fleece lay close to the body, twisting vertically toward the ground.

**Synthetic dye:** A chemically complex colorant derived from coal tar.

## T

**Tags:** Broken or dung-covered wool and other waste that are separated on the shearing floor and disposed of.

**Tender Wool:** A fiber staple containing weak areas that can only be used for carding and not combing. It is caused by an alpaca's illness, excessive exposure to weather, or poor nutrition.

**Tensile Strength:** The amount of pulling force a fiber can withstand before it stretches and breaks.

**Textile:** A wide classification of materials that can be used in constructing fabrics. Also the fabrics made with those materials.

**Tippy Wool:** Badly weathered ends of fleece, usually contain a considerable amount of dirt, grease and other debris. Undesirable because the tips dye differently from the rest of the fleece.

**Tops:** A continuous, untwisted strand of combed alpaca fibers. No shorter hairs are present, as they have been removed by careful combing.

**Tui:** A six to eighteen-month-old alpaca, or its fleece. The most high quality fleece an alpaca will ever produce.

**Twist:** The number of turns about its axis per unit of length in a yarn or other textile strand. It is usually indicated as turns per inch or tpi.

## U

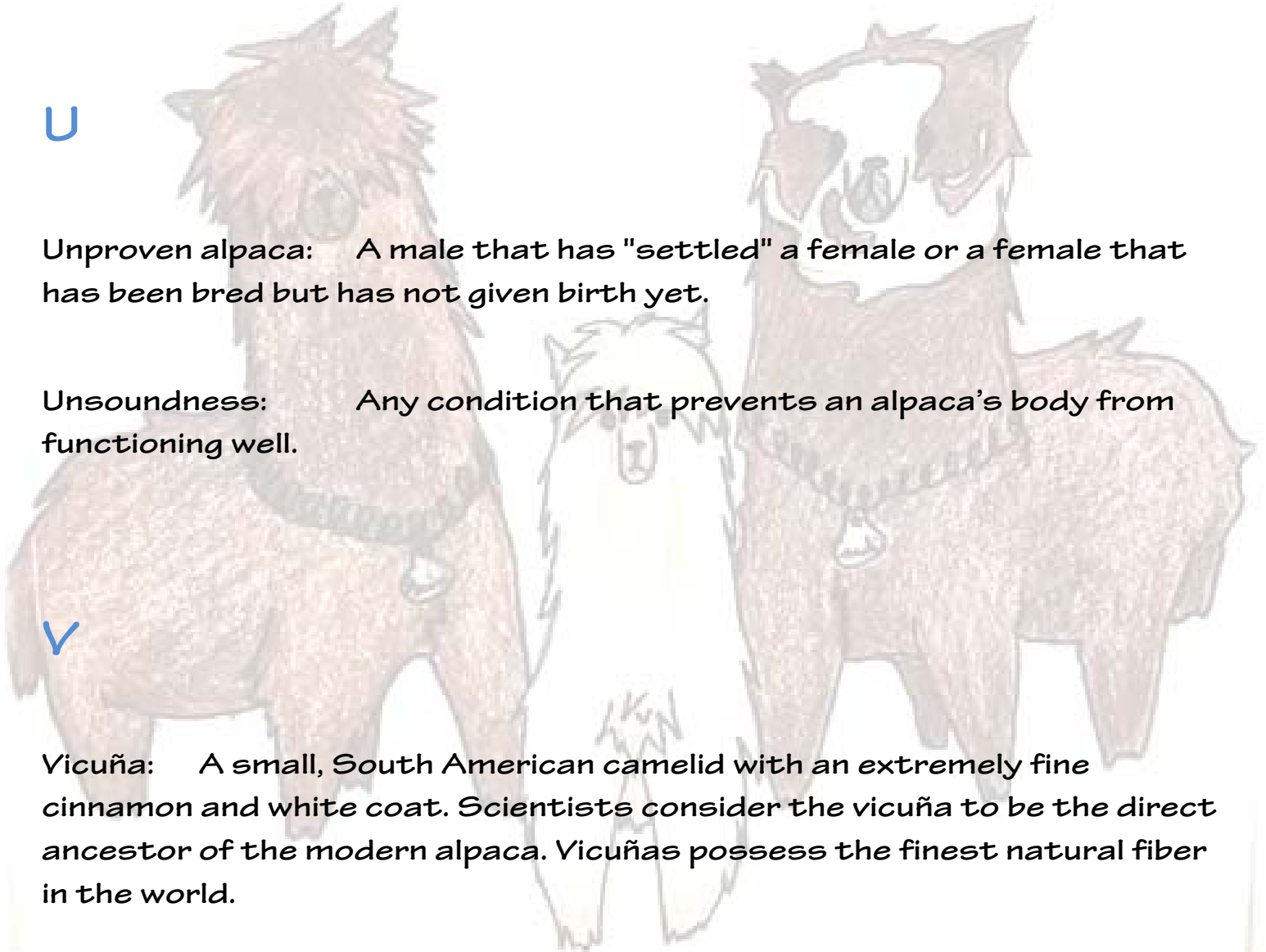
**Unproven alpaca:** A male that has "settled" a female or a female that has been bred but has not given birth yet.

**Unsoundness:** Any condition that prevents an alpaca's body from functioning well.

## V

**Vicuña:** A small, South American camelid with an extremely fine cinnamon and white coat. Scientists consider the vicuña to be the direct ancestor of the modern alpaca. Vicuñas possess the finest natural fiber in the world.

**Virgin fiber:** Completely unprocessed wool or fiber. This term is a misnomer when used in advertising or on labels.



## W

**Weanling:** A weaned alpaca less than one year old that is no longer nursing.

**Weaving:** Making cloth by interlacing yarns at right angles according to a pattern.

**Wool cap:** Wool on the alpaca's head and between its ears. Considered a desirable aesthetic quality; also known as the topknot and sometimes the bonnet.

**Woolen:** Yarn made from fibers that are one to three inches long that have been carded but not further processed. Woolen fabric is characterized as being bulky, fuzzy and thick.

**Worsted:** Yarn spun from alpaca fiber three inches long or longer that has been carded, combed, and drawn. Combing is done by machines that straighten alpaca slivers, making each fiber lie parallel.

## Y

**Yearling:** An alpaca aged one to two years.

**Yield:** The amount of clean wool from a specified amount of grease (or dirty) wool. Also, the amount of usable fiber after the processes of washing, drying, and removing guard hairs.

**Yolk:** A colorless natural impurity consisting of grease and sweat found in fiber.

