

Canadian Alpaca Guide

Revised 2025



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The Canadian Alpaca Guide

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Alpaca Canada would like to thank all those who have volunteered and contributed to make this possible.



Welcome to the latest edition of the Canadian Alpaca Guide

You hold in your hands the most recent edition of the Canadian Alpaca Guide. It has been revised and updated to include the most current information available.

This consists of farm name, owners, physical/mailling address, phone number, website and emails membership listing found on the Alpaca Canada website: www.alpacainfo.ca

On the Alpaca Canada website you will also find:

- Certified fiber classes and sorters
- Alpaca Shearers (listed by provence)
- AOA certified Canadian judges (both Halter and Fleece)
- Alpaca Canada Show System Rules
- The "Visit a Farm" listing which

assists prospective alpaca owners organizing visits to nearby farms where they can 'talk alpaca'.

The Alpaca Canada Facebook and Instagram pages, which are being utilized as a means to promote the benefits of owning alpacas, their luxuriant fibre and offer information on upcoming events, continues to grow in popularity. It is another excellent way for those whose interest in alpacas has been piqued to access more information on the animals and those who raise them. The more alpaca farms you visit the more often you will hear the echoed claim, "I was sold from the moment I looked in their eyes and sunk my fingers in their cloud like fibre." Why not schedule a visit to a farm near you.

Alpaca Canada sanctions national alpaca shows Canada-wide that are staged annually to highlight the best alpacas and fleece that Canadian breeders have to offer. These shows are open to the general public. In fact, they welcome your attendance.



This is another great opportunity for someone who has an interest in the business to learn even more about alpacas as you listen as the Judge gives reasons why this alpaca was chosen over another, or how their fleece had better crimp and fineness than another. All this information will serve you well when you are ready to make your first purchase. Perhaps you have already purchased your farm but have not yet made your first purchase of alpacas; did you know you can still become an Alpaca Canada member? As an Associate Non-Owner Member you have access to all the information and many of the benefits if both an Industry and Owner member. You can also attend the Annual General Meeting although as a non-owner, you will be unable to vote on motions put forth.

The Canadian Alpaca Guide was first created to provide a means of showcasing the alpaca industry in Canada and to provide information that would aid those interested in becoming part of the alpaca world; it offers information on the alpacas, the business, the Associations - both Alpaca Canada and the Canadian Llama & Alpaca Association (CLAA) - and the industry itself.

Alpaca Canada was incorporated as a Not-For-Profit association in 2006 and at that time set as its mission statement:

"To represent the interests and evolving needs of Alpaca Canada members and promote the development of a sustainable and integrated Canadian alpaca industry"

Alpaca History - In Short

Throughout the centuries, the history of the alpaca has been interwoven with the activities of humans. The alpaca was the only fully domesticated animal found in the Americas at the time of colonization. Alpacas were the lifeblood of the ancient Andean people. They provided a source of fleece, hides, meat and fuel (manure).

Alpacas are members of the camelid family. Their closest relative is the llama but they are also related to the commonly known dromedary and bactrian camels. Alpacas and llamas were specifically bred by the Andean people from their wild cousins the guanaco and vicua to provide transport capacity (llama) and high quality fibre (alpaca). Both animals were also used for meat and hides. There is evidence of alpaca animal husbandry and selective breeding practices dating back to nearly 6000 years. Hand woven textiles that have survived from the ancient Pucara culture of 2500 years ago are among the most beautiful ever produced.

The Incan civilization (1438-1532) held alpacas in high regard. They played an important role in the daily and spiritual life of the people. The production and use of fibre was strictly regulated by the state and involved status and religious belief. The Incas counted their wealth in cloth not gold. It was used to settle debts within their society and disputes with their enemies. Different kinds of fibre were distributed according to the receiver's social class, with the finest reserved for royalty.

When the Conquistadors landed in South America, they severely set back the native alpaca industry. They slaughtered the majority of the domestic alpaca stock and eliminated the Incan culture. The population of alpacas and llamas in the pre-Conquest period was estimated to be in the tens of millions of animals.

In the mid-1860 an english wool importer, Sir Titus Salt noticed that some sacks that he thought contained sheep's fleece from Peru had an incredible sheen and feel. The socks turned out to be alpaca fleece! This discovery marked the beginning of the European processing of alpaca fibre. Alpaca fleece made steady gains in popularity over the next 140 years and is now considered a luxury fibre in the world textile market.

Canadian Alpacas

Prior to 1987, the only alpacas in Canada were held in zoos or game farms. Mountain Meadows Ranch in Alberta was the first Canadian alpaca ranch to acquire two female alpacas, which were traced back to Chile through the Stuttgart Zoo.



Direct importation from South America into Canada was impossible because there were no established protocols. A protocol was established with New Zealand and in 1990 a group of eighteen breeders called the Canadian Alpaca Adventure (CAV) purchased a group of Chilean alpacas. This first importation, which had grown to over 500 animals, arrived in Canada in 1992 and formed the backbone of the Canadian Alpaca Industry. There were additional imports from various countries until December 31, 2000 when the registry was closed. Since then only animals bred from Canadian stock are eligible to register in the herd book as purebred alpacas. (See 'The Canadian Llama and Alpaca Registry' on page 6)

Important First Steps on Entering the World of Alpacas

The Alpaca Canada Association encourages you to look into the alpaca industry and research all avenues thoroughly before purchasing alpacas. We suggest you speak to professional advisers, particularly your accountant and banker before making a purchase. It is important to decide whether you are looking for an investment or a lifestyle. You will need to determine your personal situation, your budget, and your expectations.

While researching the industry:

- Visit near-by alpaca farms to see and touch alpacas, and talk to as many breeders as possible. Owners enjoy nothing more than showing off their alpacas. The Alpaca Canada web site provides a complete listing of Alpaca Canada members, by province, to help you find breeders in your area.

- Attend alpaca shows and events where you can learn to gauge an alpaca's quality. You can learn how to evaluate alpacas by listening to comments from trained judges at shows or experts at education events. Alpacas are generally priced according to their quality so it is important to know what quality suits your interests and budget.

Do you have previous livestock experience? Have you worked with animals before? Are you aware of the time and effort required to care for them?

- Do you have sufficient farm facilities to raise alpacas? This includes land, pasture, shelters, fencing, a water source, access to feed and veterinary care, etc.
- Will you care for the alpacas yourself or hire staff for their management?
- Will you board (agist) alpacas for other alpaca owners who are not ready for hands-on management?
- Will you agist alpacas if you do not have your own facilities?
- Will you buy a small number and build up your herd, or buy many and get into alpaca farming quickly?
- Will you offer stud services?
- A business and marketing plan is essential for the success of your alpaca venture. Have you determined what type of venture you want? Do you have business and marketing plans?

By taking these important steps in researching the alpaca industry, you will have confidence in your decision to purchase alpacas.



4 Most Frequently Asked Questions About the Alpaca Business

1. What is the initial cost to set up an alpaca business?

The initial costs of setting up an alpaca business will depend on your personal situation (ie. does your farm have pastureland and outbuildings). Here are some things to consider:

- Barn/shelter - size and number(s) depend on herd size; alpacas require shelter to protect them from extreme environmental conditions;
- Fencing - alpacas need fencing to protect them from predators;
- Feed - high quality grass hay and mineral supplements;
- Fresh water;
- Insurance - if you wish to purchase livestock insurance, rates will vary based on herd size and value;
- Stock trailer for transporting animals (for small loads, a pick-up truck with canopy or van is suitable);
- Medical - vaccinations once per year and periodic deworming (number depends on herd size and parasites in your area), and pregnancy tests, if desired;
- Shearing (paying a shearer or purchasing and maintaining shears yourself);
- Boarding (termed agisting for alpacas) if you do not have adequate livestock facilities of your own;
- Skirting and Sorting service either by certified Sorters or by custom mills (this skill can be acquired by alpaca owners);
- Breeding fees (if you do not own your own stud male or wish to diversify the genetics of your herd), Outside breeding fees range considerably based on the quality of the stud.



2. How much does an alpaca cost?

The purchase price of an alpaca depends on a number of factors, including: quality and colour of the fleece, conformation, reproductive abilities, age, sex, pedigree, registration status, etc. The cost of an alpaca can even be affected by geographic location, with some areas of Canada showing an increased growth and demand over others. A very general guideline for purchase pricing follows:

- Non-breeding animals (usually gelded males) generally start at a low price that goes up depending on the particular animal;
- Breeding males and females start at a higher asking price that increases depending on their quality. Exceptional animals, particularly stud males, cost much more. Younger animals (<1 to 2 years) tend to be less expensive than adults (all other things being equal) because they aren't yet proven breeders.

3. How much fibre does an alpaca produce per year?

The average total fleece weight per animal is roughly 6-10 lbs for an adult shorn once a year (which is the recommended shearing schedule). However, the prime fleece comes from the "blanket" area (across the back, upper sides and rump). The average weight of the blanket is approximately 4 lbs. These weights are based on relatively clean fleeces, with little debris and dust. On some alpacas, the only marketable fleece comes from the "blanket" area, whereas on others, virtually the entire fleece is marketable, based on the fineness of the fleece and the absence of guard hair (coarse, straight fibres). Fleece weight will increase with coarseness and with density, so a fine, dense fleece may weigh the same as a loose, coarser fleece. For this reason, weight is not a good measure to use alone when judging the quality of an alpaca's fleece. It is important to keep breeding standards high to produce fine, dense fleeces for maximum return for the producer. The finer the fleece, the higher the value.

4. What is the return on my investment in alpacas?

The return on investment will depend on your expenses, the sex and quality of the offspring, and your marketing efforts. The alpaca breeding market continues to be strong due to the relative rarity of alpacas in Canada and the need to increase the national herd size substantially to supply a market for alpaca fibre. Good quality stock commands relatively high prices; therefore as your herd grows its total value could go up markedly. Revenue can also be generated from the fleece. The value of an alpaca fleece depends on its quality and weight. This is determined by the fineness or soft feel to the touch (referred to as "handle") crimp and other fleece characteristics. The price also depends on whether it is sold in the artisan or cottage industry market (e.g. hand- spinners, cottage craft operators) versus the commercial market (cg. fibre processing mills). Higher prices are obtained from the artisan or cottage industry market, however, this market is limited. The price obtained for raw fibre varies with the quality starting around \$5 per pound and upwards. The finest, cleanest fleeces fetch the premium prices. The financial returns increase as processing, or the value-added component, increases, i.e., producing yarn, textiles, and finished products. The more work you put into marketing and possibly creating a value-added component, the more financially rewarding the venture will be. As in any venture, there are no guarantees and market forces will prevail. It is important to learn as much as possible about alpacas and the industry in order to be successful.

TIPS FOR NEW BUYERS

At this stage of the industry's development, price is directly related to the individual alpaca's breeding potential, and the potential quality of the offspring. For example, a gelding (castrated male) has no breeding potential and is therefore the cheapest alpaca to buy. On the other hand, a high quality male with many good progeny on the ground has a very high breeding potential and can be worth many thousands of dollars. He can also command a high income from the stud services he provides. Female prices are a reflection of quality, age, breeding history, and to which stud male she is bred. Income from females is derived from selling the offspring. Although the average gestation is eleven and a half months, a projection of three offspring in four years per mature female is more realistic than expectations of one offspring every year. With the purchase of your first alpaca you will enter an exciting and rewarding industry. Your alpaca purchase should be an enjoyable and exciting experience with no surprises. As a service, we offer the following alpaca purchase tips to all new buyers:

- Visit several alpaca farms before your first purchase and, if possible, feel the fibre. Ask a lot of questions; the education you will receive from breeders will be invaluable. Only deal with a breeder you feel comfortable with.
- You are the customer, the breeder is supplying a service. Deal where you feel you will get the best "service" that is proportional to your investment.
- Ask for references, names of people that have purchased alpacas.
- Negotiate a deal that works for you. Discuss fertility guarantees, re-breeding of females, cria health and live birth guarantees, health records, financing, payments, transport, boarding fee, (if alpaca delivery is not immediate after purchase), registration and get a written contract.
- Especially for people new to this industry, a written contract is very important. Get all the details in the contract. Going through this process will lead you through a discussion of the important demi purchase. The contract should contain:
 - Buyer information
 - Seller information
 - Name of the alpaca(s), registration number and microchip number (the method of permanent identification)
 - Price and payment schedule. This should include a lease agreement, if the alpaca is purchased over time
 - Any guarantees and additional services
 - Delivery and transfer of ownership schedule
 - Feel comfortable asking for a pre-purchase Veterinary health check, It is a common practice when purchasing breeding stock in other livestock industries.

Buyers should request and check registration and ownership of the registered alpacas of interest. Looking at the "Certificate of Registration" is the easiest way. However, you can also access the herd book in the Herd book/Pedigree section of the CLAA website. You can search by alpaca name, alpaca registration number, alpaca microchip number or owner name. The owner's name is the least desirable way to check an animal's information, as it is very specific and requires the exact name of ownership. The Transfer of Ownership form is on the reverse side of the Certificate of Registration. The signature of the seller or authorised agent is required for the transfer to be processed. In Canada, the seller is responsible (under the rules of the Animal Pedigree Act) for the transfer of the registration papers to the new owner. This includes completing the transfer form, fee payment and mailing to the CLAA. As such, do not accept a registration certificate as proof of ownership unless your name appears on the certificate as the registered owner.

Young males and females:

Completed transfer of ownership is required. This is the responsibility of the seller.

Breeding males: As above. The date of ownership is very important. The responsibilities of keeping breeding records and signing as owner of sire at time of service will change with date of ownership change.

Bred females: In order to register the expected cria, you will need the signature of the stud owner, plus the stud's name, registration number, DNA case number and date of service. It is a good idea to request a completed Application for Registration for the cria at the time of sale.

Bred females with cria at side: As above for the expected cria. For the cria at side you should request a completed Application for Registration which should include the completed transfer of ownership portion at the bottom of the application. Most important are the two signatures of the stud owner and the owner of the dam at birth.



Canadian Alpaca Registry

Canadian federal statute, the Animal Pedigree Act (APA), backs breed associations in Canada. The function of the APA implemented in 1900, was to bring order and protection to the Canadian livestock industry by the standardisation and control of the sale of breeding stock and how they are registered. Two of its primary mandates are:

1. To promote breed improvement and,
2. To protect persons who raise and purchase animals by providing for the establishment of animal pedigree associations that are authorised to register and identify animals that, in the opinion of the Minister of Agriculture of Canada, have significant value.

Only one Association per breed is incorporated under the Act and given sole authority to: represent a breed or related breeds and to manage a public registry for the breed; to establish breed standards; to establish rules of eligibility for registration and, to issue certificates of registration. Amendments to breed association by-laws require approval of the voting membership of the association, followed by approval from the Minister of Agriculture, to ensure that they comply with the provisions of the APA before they can take effect.

The breed association responsible for alpacas in Canada is The Canadian Llama and Alpaca Association (CLAA). The CLAA was first incorporated under the Animal Pedigree Act of Canada (APA) in January of 1989 as the Canadian Llama Association. Work forming the association actually began in 1987. The Association's name was changed to its present Version in December of 1996 to more accurately reflect the two main breeds being registered--alpacas and llamas.

Registration of our Foundation Stock began in 1990 with the first animals being primarily from the USA, zoos and game farms. In 1992 the first major imports from outside North America started to enter the CLAA registry. These animals were "screened" to stringent standards. The screening criteria for alpacas were developed in a close working relationship with the Alpaca Registry Inc of the US, with both registries using the services of specially trained veterinarians and phenotypic experts. The CLAA began by defining 'foundation stock' with the use of Association-developed breed standards and rigorous physical examinations. It maintains these standards by requiring that registered progeny of these foundation animals meet these breed standards and are also free of congenital defects. Llamas and alpacas continued to enter the CLAA registry as foundation stock until December 31, 2000, after which time, until very recently, only animals born in Canada to two CLAA registered parents were eligible for registration.

In 2003 several amendments were made to the CLAA by-laws. The first allowed any animal, regardless of its country of birth, or date of birth, eligibility for registration in the CLAA Herd Book. Both parents however, must be CLAA registered and the animal must meet all other rules of eligibility for registration.

The second amendment introduced a breed-up program. This program allows breeders of CLAA registered stock to introduce new blood lines into the Canadian Llama and alpaca herd. The program refers to recording new stock at 0% and breeding them to an established purebred (or foundation stock) alpaca. The first generation offspring will be eligible for 50% Purebred status, the second 75% and so on until the offspring reach 15/16th or officially, purebred status.

In both cases alpacas being registered must be breeder certified, free of congenital defects and parent verified.

The parent verification process refers to the laboratory tests by which animals are compared to their parents. The tests are based on the fact that each parent contributes a random 50% of an animal's genetic makeup and determine if an animal can be included or excluded as a possible parent. An animal's parentage can never be confirmed 100%, but individuals can be excluded as possible parents with a very high degree of accuracy. The use of DNA is generally more accurate since it is based on direct comparison of the genetic code of an animal rather than the product of its genes (blood typing). A pedigree involving DNA tested lineage verifies with near certainty a particular lineage and authenticates the written record. Accurate knowledge of pedigree is the most important requirement for sound breeding decisions and therefore breed improvement.

The CLAA also requires that each breeder complete a form declaring that the animal being registered is free of congenital defects, ensuring over time that potential genetic problems are eliminated from our national herd. This is particularly important in closed gene pools--the practical result of registry closure. Thus, to some degree, our registry seeks to eliminate substandard animals (based on congenital defects) produced by registered parents. The registries in the future may not only use congenital defects as a barrier to registry but may also perhaps use performance characteristics. The principle behind both is that, if a pedigreed alpaca has qualities that aren't desirable or advantageous to the future of the industry, then that animal has no place in the registry. Breed standards in a registry are basically a list of characteristics that give recognition to a breed. The CLAA is determined to serve its membership by being proactive in order to meet the needs of the membership and ensure that Canadian Alpacas are at the forefront of breed improvement. To enable this, the CLAA passed amendments to the bylaws allowing the registration of alpacas created by means of artificial insemination or embryo transfer. As the technology for embryo transfer has been successfully developed and is available to ordinary breeders, this is an exciting opportunity to make rapid improvements in the breed by using selective mating.

Another change to accommodate the need to bring new genetics into the herdbook was adopted in February of 2015 and allows microchipped, foreign registered animals registered with an approved registry, and having 8 great grand-parents to become registered as 100% purebred Canadian Alpacas. These changes to our registry and the determination of Canadian breeders to create consistently better offspring will maintain the strength of the breeding industry at home and abroad.

Minimum Breed Standard for Alpacas in Canada

Canadian Llama and Alpaca Association – Alpaca Breed Standards. 2002

An Asterisk (*) denotes a congenital defect - an inherent serious fault at birth (based on visual observation) Animals displaying these traits should not be bred, and cannot be registered

General Appearance:

The huacaya-fleeced alpaca should be well proportioned, balanced and symmetrical. The length of the neck equals the length of the legs and 2/3 the length of the back. The alpaca characteristics should be evident in the head, ears and tail set. The fibre characteristics of the "huacaya" alpaca differ distinctly from the "suri" alpaca.

The suri-fleeced alpaca should be well proportioned, balanced and symmetrical, The length of the neck equals the length of the legs and 2/3 the length of the back. The suri alpaca may appear to have longer ears, a tapered nose and a straighter top line than the huacaya alpaca.

The alpaca characteristics should be evident in the head, ears and tail set.

The fibre characteristics of the suri alpaca differ distinctly from the huacaya alpaca.

Height and Weight

Minimum height is 81 cm (32 in.) by the age of two

Minimum weight is 47 kg (105 lbs.) by the age of two.

Faults:

<81 cm high at the withers by the age a two

Head

The head should be of medium length, triangular, with a square muzzle, and be symmetrically formed with the incisors meeting the dental pad. The ears should be erect and spear-shaped.

Faults:

Undershot Jaw

Overshot Jaw

*Gopher Ears - short, rounded and deformed ears

*Curled (fused) ears - closed opening of the ears

*Banana Ears (indicative of llama traits)

*Eyes: entropion - eyelid rolls in & hair rubs on eye; ectropion - eyelid rolls out or is very loose

*Juvenile Cataracts

*Juvenile Blindness

*Wry Face - lateral deviation of frontal nose plate; can be slight to extreme

*Choanal Atresia - deviation of the nose; can be slight to extreme

*Deafness

(*denotes congenital defects)

Neck and Body

The neck is straight and near upright. The back is straight to slightly rounded. The rump should be broad and slightly sloping downward to a straight low set tail.

Faults:

Sway Back, Hump Back

Too long or short a neck

High tail set

Herniated umbilicus

*Crooked tail (permanent deviation)

*Lateral deviation of the spine - curvature of the spine

(*Denotes congenital defects)

Front Legs

Frontal view, the legs should be strong and straight from the shoulders through the knees to the two toes. The toes should point forward.

Faults:

Angular limb deformity

Calf kneed

Buck kneed

Pigeon-toed

Cocked ankle/fetlock

Dropped pasterns

Feet-splay footed, pigeon toed

*Polydactyl - having more than two toes

*Syndactyl - toes fused together

(*denotes congenital defects)

Rear Legs

Rear view, the legs should be strong and straight. The toes should point forward. The patellas should be stable.

Faults:

Cow hocked

Sickle hocked

Post legged

Dropped pasterns

Cocked ankle/fetlock

*Luxating patellas (loose knee cap movement)

(*denotes congenital defects)

Male Reproductive Organs

Both testicles must be visible, of a firm consistency, equal in size and be >3.5 cm in length and 2.5 cm in width by the age of three (exception of geldings). There should be four teats.

Faults:

Small testicles

Testicles too soft/too hard in consistency

*No more or less than 2 equal sized testicles in the scrotum (exception of geldings)

*Ectopic testicles (not in scrotum; located in abnormal location)

*No more or less than 4 teats (exception of geldings)

*Hermaphroditism - male and female genitals

(*denotes disqualifiers)

Female Reproductive Organs

The vaginal opening should not be too small and should be situated in a near vertical plane. There should be four teats.

Faults:

Small vaginal opening

Enlarged or tipped up clitoris

*No more or less than 4 functional teats

*Vaginal opening not near vertical plane

*Lack of or incorrect anatomical position of any visible part of the reproductive system

*Hermaphroditism - male and female genitals

(*denotes disqualifiers)

Movement

The legs should move freely and evenly. They should travel in straight lines with the forward plane of movement. The distance side to side between footfalls should match the breadth of the individual alpaca.

Faults:

Winging or arcing of the feet
Rope walking

Fibre

Ideally the alpaca should have a fine, soft, uniform and dense fleece that has a minimum of medulation (guard hair). The alpaca should grow a significant length of staple.

Quality characteristics of the fleece are:

- Fineness: thickness of the fibre is measured in microns
- Density: is the number of fibres in a given area of the skin. The more fibres per unit area the denser the fleece. Density is an attribute to the weight and cleanliness of the fleece.
- Lustre/Brightness: is the light that is reflected from the fleece
- Hand: is the tactile quality of the fleece to the hand.
- Staple Length: is the length of fibre from the skin to the tip of the fibre grown between shearings; generally on a one year basis.

Huacaya Fibre

Huacaya fibre has a fluffy, spongy appearance. The fibre grows perpendicular to the skin. The hair follicles are situated close together in the skin, giving density to the fleece, with groups of fibres bunching together to form defined wavy staples. The staples have a crinkle and or crimp along the length of the fibres.

Faults:

Lack of coverage Short staple
Lack of strength Lack of density
Lack of uniformity through the blanket
Medulation (guard hair) in the prime area
Chalky/Dull fleece

Suri Fibre

Suri fibre falls close to the body, moves freely, and gives the suri a flat sided, lustrous appearance.

The locks can have penciled ringlet formation, curling to the left or right, or wave structure that forms from the skin of the alpaca. This fleece lock structure should begin at the forelock and continue down the neck, and across the body including the legs.

Faults:

Lack of coverage, Short staple
Lack of strength, Lack of density
Lack of uniformity through the blanket
Dull/chalky fleece

Summary of Congenital Defects - that disqualify an animal for registration

- Gopher ears
- Banana ears
- Juvenile Cataracts
- Juvenile Blindness
- Wry Face
- Choanal Atresia
- Curled (fused) ears
- Entropion, Ectropion (eyelids)
- Deafness
- Lateral Deviation of the spine
- Crooked tail (permanent deviation)
- Polydactyl
- Syndactyl
- Luxating patellas
- No more or less than four teats on a male (exception geldings)
 - No more or less than 2 equal-sized testicles in the scrotum
- (Exception geldings)
 - No more or less than four functional teats on a female
 - Ectopic testicles on a male
 - Vaginal opening not near vertical plane
 - Lack of any part of the reproductive system
 - Hermaphroditism



The Basics of Alpaca Care

Alpacas are members of the camelid family and are native to the altiplano, the high plateau area of the Andes Mountains in Peru, Bolivia, and Chile. They were domesticated approximately 6000 years ago, specifically for their very soft, warm fleece. With their beautiful fleece, big eyes, and quiet dispositions, they are endearing animals.

Adult alpacas generally weigh between 110 and 200 pounds and are approximately three feet high at the shoulder and five feet high at the top of the head. They are hardy animals with a life span of approximately 20 years. Alpacas are intelligent, curious, and gentle with people. Each alpaca has a unique personality. Most of the time they prefer not to be touched, and they appreciate it if you respect that wish. They can be easily halter trained to lead. Baby alpacas, called cria, are born after a gestation of approximately eleven to eleven and a half months. They weigh between 6.3 kg to 11.3 kg (14 and 25 lbs) at birth, and are almost always born in daylight hours (an adaptation to life on the altiplano, where nights are cold). Twins are extremely rare. Cria are not usually weaned until after 6 months of age. Inappropriate alpaca-human bonding (excessive handling and socializing with a cria) must be avoided because it can result in severe behaviour problems when the cria matures.

Alpacas are herd animals and need at least one other alpaca for company. They communicate with each other through an array of vocalizations and body postures. Humming is usually a sign of mild stress, with the exception being a mother humming frequently to her newborn cria in the first few days of its life as part of their bonding process. The alarm call is used when something new and possibly threatening is seen - however, it may just be the family cat! Spitting is a novel way of communicating for which all members of the camelid family are known. It occurs when one alpaca is fed up with another alpaca's presence, such as in a dispute over food, or when a pregnant female wards off a male's advances. It is uncommon for an alpaca to spit at a human, but it is sometimes possible to be caught in the crossfire between two alpacas.

Alpacas use communal dung piles for both urine and feces which makes it easier to maintain a clean barns and pastures. They love to dust bathe and usually paw up an area of the pasture to use for a good roll. After rolling in the dirt on both sides, they will stand up and shake themselves off like a dog that has just come out of the water. On warm days they love to sprawl or sunbathe stretched out on their sides. This sight can be quite alarming to new owners when viewed for the first time. On hot days alpacas will come running to be sprayed with water from a hose.

Owning any livestock entails a commitment to looking after all the animals' needs and providing the best environment in which to thrive. Alpacas have adapted to a wide variety of climates and conditions, but do have some unique requirements for their care.

Fencing & Shelter

Alpacas need fencing that will protect them from predators, the most common ones being domestic dogs and coyotes— there may be others unique to your area. Fencing should not only keep out predators but also be of material that the alpaca cannot become entangled in (for example: no barbed wire). Some alpaca farmers also use livestock guardian dogs.



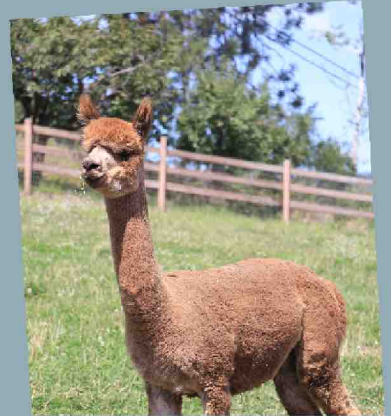
Alpacas need a structure to give them shelter from environmental conditions such as extreme cold or heat, heavy rain or snow, wind chill, or waterlogged ground. Although their native altiplano in South America has a harsh climate, it does not have the very cold temperatures and snow that many parts of Canada have in the winter. A barn with deep straw bedding is usually adequate; some farms in northern, very cold areas supply supplementary heat to the barn. The building should have good ventilation, and sufficient space for the animals to move around in, as well as room to eat hay under shelter when needed (such as during an all-day blowing snow storm). Alpacas are susceptible to heat stress. They must be sheared in the spring prior to the onset of hot weather, and they need adequate shade. High humidity with heat compounds heat stress. Some farms use fans in their barns to cool the alpacas. Most alpacas enjoy cooling off in wading pools or being sprayed with water in hot weather.

Nutrition

Alpacas are modified ruminants; they have a three chambered stomach and chew their cud. As grazers and browsers, they should have access to good pasture. They are capable of overgrazing an area so pasture rotation is essential to maintain healthy pastures. With breeding stock, there will be a minimum of three groupings needing separate pastures and designated shelters: females (and their cria); males; and young weaned alpacas. Some very dominant or highly territorial males may need to be penned separately from other males while still remaining in sight of other alpacas. The number of alpacas that an acre of pasture can maintain varies with locale, soil fertility and rainfall. An average stocking density would be 5 alpacas per acre. Hay should be 10 - 12% protein for adult maintenance. Lactating females, females in late pregnancy, and young growing alpacas require hay with 12 - 16% protein. Grassy hay is best-- avoid hay with timothy seed heads because these get caught in the fleece and ruin it for



processing. Alpacas have specific mineral and vitamin needs. Many alpaca owners feed a supplement formulated specifically for alpacas to ensure the proper intake of these essential nutrients. In cold weather additional grain may also be needed. Access to free choice loose mineral and salt, as well as a constant supply of clean, fresh water, should be available.



Health

De-worming and immunizations are part of routine care. In areas where there are white-tailed deer, regular de-worming with Ivomec may be recommended to prevent meningeal worm. This parasite, whose natural host is the deer, can cause serious neurological problems in alpacas, and sometimes death. Alpacas must be sheared every year in the spring, before the start of hot weather. The only exception would be some geriatric animals that have a very short re-growth of fleece--they could be shorn every other year. Alpacas have two digits on each foot with a soft pad and a toenail (not a hoof). The toenails need trimming with pruning shears, usually every two to four months. Since fleece obscures their body for most of the year, hands-on assessment is needed to determine an alpaca's body condition. Body scoring (see graphic at left) should be done at least twice a year (more frequently for nursing mothers because they have higher nutritional requirements). This assessment should also include weighing of the alpaca and inspection of teeth. Cria are usually weighed more often in the first few months of life to ensure they are receiving adequate nutrition. Some alpacas may need trimming of their incisors to ensure a proper bite alignment. Mature males should have their fighting teeth (canine teeth) trimmed on a regular basis to prevent them from injuring one another.



Reproduction

Female alpacas do not have a heat cycle: they are induced ovulators. If there is a mature egg ready in the ovary, the act of breeding causes the egg to be released. Most breeders bring the female and the chosen male together in a small paddock or enclosure. If the female is receptive she will cush (lie down) allowing the male to mount her for breeding. A breeding may take from 5 - 60 minutes. A pregnant female will spit off, or run away from the male's advances. This is the common way to check for pregnancy and is called the 'spit check'. At present, artificial insemination is in the experimental phase only. Embryo transfer is possible. Although females can be bred if they are at least a year old and weigh over 100 pounds, many breeders wait to breed the female until she is at least 18 months old. Many males are able to breed at two years of age; but some may not be ready until age three. If it has been decided that a male is not stud quality, gelding should be considered after he has reached the age of 18 to 24 months.

For References to information on caring for alpacas - and other Subjects addressed in this Guide. Please visit the Alpaca Canada Website at www.Alpacainfo.ca

PRINCIPLES OF BIOSECURITY

Putting preventive measures in place to keep animals healthy has been a long-standing and successful practice on Canadian farms. These measures form a biosecurity plan. A biosecurity plan should address how you manage animal, vehicle and human access on the farm; animal health; and operations.

By following the principles below and working with a veterinarian, you can play a significant role in keeping your animals and your industry as healthy as possible.

ACCESS MANAGEMENT

Designate distinct zones

Establish distinct zones where varying levels of protection are needed. Define these zones with fences (or other features) and identify them with signs.

Control movements in and between designated zones

Control movements of people, animals, equipment and vehicles

- into a designated zone,
- out of a designated zone, and
- between the designated zones.

This can be done through the use of controlled access points.



ANIMAL HEALTH MANAGEMENT

Manage animal movements

Plan animal introductions, their movement within the premises and their removal from the premises. This includes using management strategies such as:

- permanently identifying all animals and keeping records for traceability,
 - testing animals before introduction,
 - following post arrival isolation procedures
 - scheduling animal movements ahead of time,
- and maximizing downtime in production areas between animal groups.

Practice animal identification and good record keeping

It is important to participate in traceability systems where available.

Observe animals for signs of disease

Ensure workers are knowledgeable and experienced in recognizing signs of disease. They should be able to do this by observing animals' production levels, behaviour, clinical signs, and feed and water consumption.



Establish response plans for potential disease situations

Contact a veterinarian if you see unusual rates of disease or death.

Work with your veterinarian to have a "disease response plan" in place for suspected cases of contagious or reportable diseases. A disease response plan should include:

- triggers for the response plan (for example, numerous animals showing signs of disease, a significant decrease in production, a lack of response to routine treatments, unanticipated mortality rates),
- details of whom to contact,
- plans for limiting movements of animals, people or vehicles on or off the premises, and
- other measures determined by you and your veterinarian.

OPERATIONAL MANAGEMENT

Properly dispose of deadstock

Plan and control the disposal of carcasses according to municipal and provincial regulations. Carcasses should be disposed of in a timely manner.

Manage manure according to regulations

Plan and control manure management according to municipal and provincial regulations. Planning should include measures for collecting, storing, moving, and disposing of manure in ways that minimize the chance of spreading any disease organisms.

Keep the premises, buildings, equipment and vehicles clean

Buildings, equipment and vehicles should be cleaned regularly to prevent the introduction of disease and pests. Consider applying disinfectants when practical.

Maintain the facilities in a state of good repair

Maintain all facilities in a state of good repair so that your biosecurity plan can be effectively implemented.

This may include:

- buildings and fences to prevent wildlife and people from entering the premises,
- feed storage areas to prevent access by wildlife and vermin, and
- laneways to allow for cleaning and disinfecting vehicles.



Obtain production inputs from a reliable source

Purchase production inputs such as feed and bedding from reliable sources. Ensure the water supply is free of contamination.

Control pests

Ensure a pest management program is in place to prevent the spread of disease.

Plan and train

Have a written biosecurity plan that is updated regularly.

Ensure that employees receive proper training and training materials so they can continue to follow the plan.

About Alpaca Fibre

Demand for quality alpaca fibre is the driving force behind the breeding industry. Consequently, the annual shearing and fibre harvest plays a crucial role in raising alpacas. Shearing is important for the health and well being of the alpaca. Without annual clipping the fleece continues to grow, which can lead to heat stress in the summer. If not shorn once a year, alpaca fleece quality declines due to weathering, bleaching and matting. Alpacas shorn annually also have a higher rate of re-growth, which results in a higher yield than animals shorn every other year.

Fibre Characteristics

Alpaca fibre is a natural, environmentally friendly renewable resource. Alpaca fleece is fine, soft and warm, The fineness of the fleece is measured in microns (1 micron = 1/1000 of a millimeter). A low micron count indicates a fine fleece and the finer the fleece, and the greater the value. Alpaca fleece has a range of 22 naturally occurring colours from white and cream to fawn, brown, grey and black.

There are two types of alpacas: the huacaya (pronounced wa-ky-ah) and the suri. Although identical in body, these animals display remarkably different fleece types. The huacaya, which comprises over 90% of the world alpaca population, has a fluffy appearance. This is because its fleece grows perpendicular to the body and is crimped or ridged. The suri's fleece hangs down from the body in a variety of ringlet-type lock structures described as a wave, twist, curl or straight lock. The smoothness of the fibre gives this fleece a high luster. Alpaca fibre is strong, resilient, does not easily tear or pill and is naturally water repellent. Alpaca is an ideal fibre for industrial processing and is washed in the same way as fine woolsens.

The absence of lanolin or grease in alpaca fibre contributes further to the desirability of the fleece. Those who are sensitive to sheep wool or allergic to the lanolin can comfortably wear garments made of alpaca fibre. The absence of grease means that it is not necessary to subject the fibre to a heavy scouring process. The wide variety of naturally occurring fleece colours minimizes the need for dyeing. Alpaca fibre does take dye readily, while still retaining its natural luster.

Alpaca is a specialty fibre that performs well on its own, but it can also be blended with other fibres to achieve different finishes. It is extremely versatile and is desired by clothing manufacturers around the world.



Fibre Harvesting

Breeders can shear their alpacas themselves, or hire custom shearers to do the job. On shearing day you will require handlers for the alpacas as well as fibre collectors-sorters. Methods range from hand shearing the standing alpaca, to using electric shears on an alpaca that is lying down on its side, either on a tarp on the ground or on a shearing table. Sheep shears are used, with a variety of specialty combs. The fleece growth on the alpaca varies in fineness and length. It is important for producers/breeders to separate the different fleece sections to meet the desired characteristics for processing.

This will result in a consistent quality end product which will maximize the return of the annual fibre harvest. Fleece growth is also a very significant consideration when establishing a farm-breeding program. Histograms (a graphic representation of fibre diameter distribution in a fibre sample) are a valuable resource to assist the producer in making informed decisions with regard to fibre production and assist with breeding program decisions. Absence of guard hair and uniformity of micron and fleece length across the body of the alpaca are of prime importance to sustain a fibre industry. At shearing time the shorn fleece sections are skirted of all debris such as excessive vegetable matter, stains, undesirable hairy sections and coarse fibres. The fleece is then sorted into grades according to fineness, colour and length to achieve uniformity. In the fibre that will be submitted for processing— whether it is for hand spinning or commercial mills. The finest and softest fleeces go into yarn destined for garments worn next to the skin. Mid-grade fibre is used in heavier yarn intended for outerwear. Coarse fibre can make felt, rugs, batts for duvet: stuffing pet beds and garden mulch.

A Fibre Harvest Code of Practice has been developed by the industry to help breeders/producers learn to handle their fibre clip in such a way that they can deliver clean, uniform batches of fibre for processing. Certified sorters can be hired to prepare fleeces for processing, to discuss end product possibilities and to offer options to maximize the return on the yearly clip.

In Canada alpaca fibre is sorted and graded into the following 6 categories:

Grade #1 < 20 micron Ultra fine

Grade #2 20- 22.9 micron Superfine

Grade #3 23-25.9micron Fine

Grade #4 26-28.9micron Medium

Grade #5 29-31.9 micron Intermediate

Grade #6 32-35 micron Robust

Harvesting the fleeces from alpacas is the culmination of a year's work. Careful breeding selection, a clean environment, balanced nutrition, minimal stress, best-use shearing, skirting and sorting practices contribute towards the goal of quality fibre production and maximize the producers return potential.



Fibre Processing

Several custom fibre mills across Canada process alpaca fibre into rovings, yarn, batts and felt.

By following the Fibre Code of Practice, as mentioned above, you will ensure your fibre is ready for processing.

The key points to remember when submitting fibre to a mill include the following:

- Remove vegetable matter. It is the hardest to remove in the mill processing chain. Try to ensure the lowest possible content in the fleece.
 - Keep a consistent staple length. The staple length will determine which type of mill you can send your fibre to for processing. Woolen mills use shorter staple lengths vs. worsted or semi-worsted mills that require a longer staple length. Variances in the staple lengths" may result in poor quality yarns with thick and thin sections.
 - Tender fleeces should not be processed at a mill. If processed into yarns, it can result in weak spots that break and pill. These fleeces are better suited for felting.
 - Ensure your fleece does not have any signs of insect infestation.
 - Minimum fleece quantities will need to be discussed with your mill. Some mills are willing to process small batches that may be submitted due to different fleece qualities, colors, or lengths. Others process by minimum weights and recommend batching or pooling like fleeces.
 - To ensure the nicest possible feel of finished yarns, remove as much guard hair as possible. If the intended end product is for furnishings or outerwear, this is not as important. Some mills have a de-hairing step in the processing that will help to remove some of the coarser hair.
- The milling process uses a variety of machines which take raw fibre and converts it into a variety of end products.

The basic steps involved in this process are as follows:

Washing or Scouring. The fibre is placed into a washer to remove excess dirt and loose debris, The wet fleece is placed onto racks to dry and then weighed and conditioned. Conditioning helps to eliminate the problem of static electricity building up in the following steps.

Picking or opening the fleece. This step utilises a special machine that opens up the staples of the fleece and helps further to remove debris.

Cont...

Dehairing. Not all mills incorporate this step, for those that do, the cleaned fibre is sent through the dehairer which separates out the coarse fibres and foreign matter.

Carding into rovings or batts. After picking and/or dehairing the fleece is sent through a carder. This process aligns the fibres in the same direction. After carding, the fibre can be left as batts (end use for felting or duvets) or run into rovings. Rovings can either be separated into "bumps" or bags for sale to hand spinners or placed into containers (usually large cardboard or metal cans) to go to the spinner.

Drawing. A Draw frame machine draws out the rovings into aligned fibres prior to spinning. This step maybe repeated a number of times to get a consistent alignment.

Spinning and Plying. The drawn out rovings are spun into single strands of desired thickness. The thickness is determined prior to the spinning and based on the finished yarn weight you desire. The singles are then plied together to create yarns.

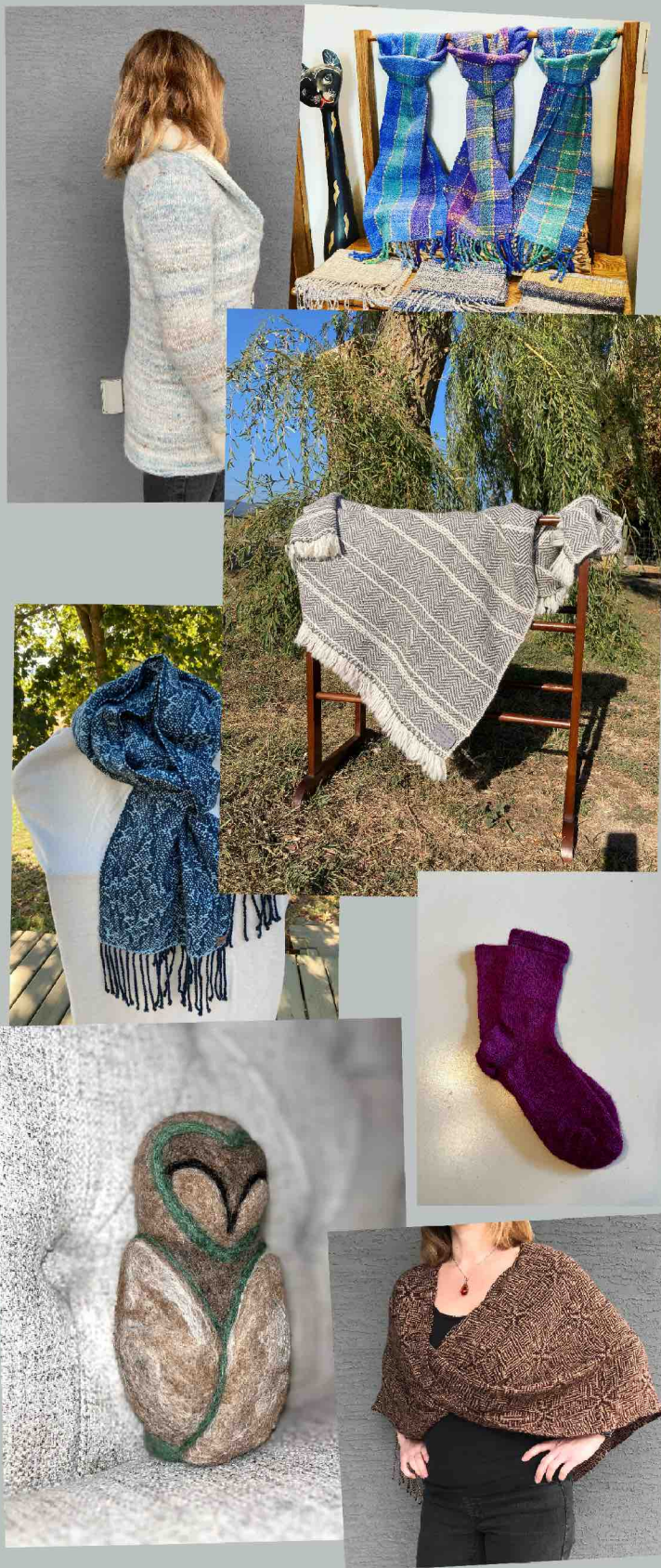
Steaming and winding. The plied yarn is steamed to set the twist and it can be wound onto cones or into skeins.

Alpaca fibre can be processed on its own or blended with a number of other natural fibres to create stunning end results. It is important to remember that when blending fibres, work with your mill as each fibre reacts differently in the various processing steps. If the end product is going to be dyed, depending on the dye technique used, the blended fibres may take up the dye differently.

THE MARKET

Most of Canadian products are sold at the farm gate, over the Internet, at trade shows, fairs, farmers markets and by mail order.

Thanks to the steady recognition of alpaca's favourable attributes by the marketplace, this elite 'green' fibre is being elevated from a cottage industry to a commercial fibre industry in Canada.



For Current listings of alpaca Shearers, certified fibre classes & sorters, and alpaca fibre processors, please Visit the Alpaca Canada Website
www.Alpacainfo.ca

Alpaca Fibre Products: Functional, Fashionable and Fun

An artist is defined as someone who professes and practices an art in which conception and execution are governed by imagination and taste. They are skillful, creative and sensitive to beauty".

With the current trend to use natural, environmentally friendly materials, "Fibre Art" is quickly growing as one of the most diverse and creative art forms.

Alpaca fibre is highly desirable as one of the fibres of choice for fibre artists. The qualities that make this fibre so appealing Include:

Its natural sheen and brightness.

It has a soft, silky feel.

It is strong and resilient.

It is naturally water repellent.

It comes in twenty-two shades - naturally - so dyeing is not necessary.

It does, however, absorb dye readily and produces stunning color(s).

It does not contain lanolin which eliminates the need for heavy scouring chemicals and makes it

more 'wearable' by those with skin sensitivities.

It blends easily with other fibres.

The fibre is shorn from the alpaca so is considered an "eco-friendly" source.

There are numerous fibre 'types' within the alpaca fibre ranging from ultra-fine and soft to thicker and robust. There are also different crimp and lock types.

The qualities that make alpaca fibre so appealing also allow for the creation of many different products using a variety of methods. Though not all may be viewed as art, each item requires imagination, conception and creation using the chosen method.

When presented with such an assortment of fibre art techniques, artists are drawn to the pleasing colours and textures that can be created using alpaca fleece. The materials produced using alpaca fibre are then crafted by fibre artists using a range of textile techniques, as described below, to create visually stunning, wearable, functional and decorative fibre art pieces.

- Raw alpaca fibre can be processed into batts that are then used in the construction of light, yet warm, comforters, vests and sleeping bags.

- Alpaca fibre can be spun, either commercially or by hand spinners, to produce a range of yarns from single strand lace-weight yarns to bulky lopi. The spun strands can be plied, using a variety of techniques, to create beautiful, unique yarns. Artists then use these yarns to create fashionable knit or crochet articles such as a delightfully soft baby blanket, a unique lacy cape, a warm winter scarf, cozy mittens or, beautiful sweaters. Robust fibres can be used to create items that require resiliency such as slippers, jackets and woven rugs.

- Fabric woven with alpaca has an elegant drape and softness to the touch, Alpaca fabric can be used to produce beautiful shawls, capes... even a wedding dress, Tailored suits or jackets are also in demand for the fashion conscious.

- Alpaca fibre can be felted using a variety of techniques.

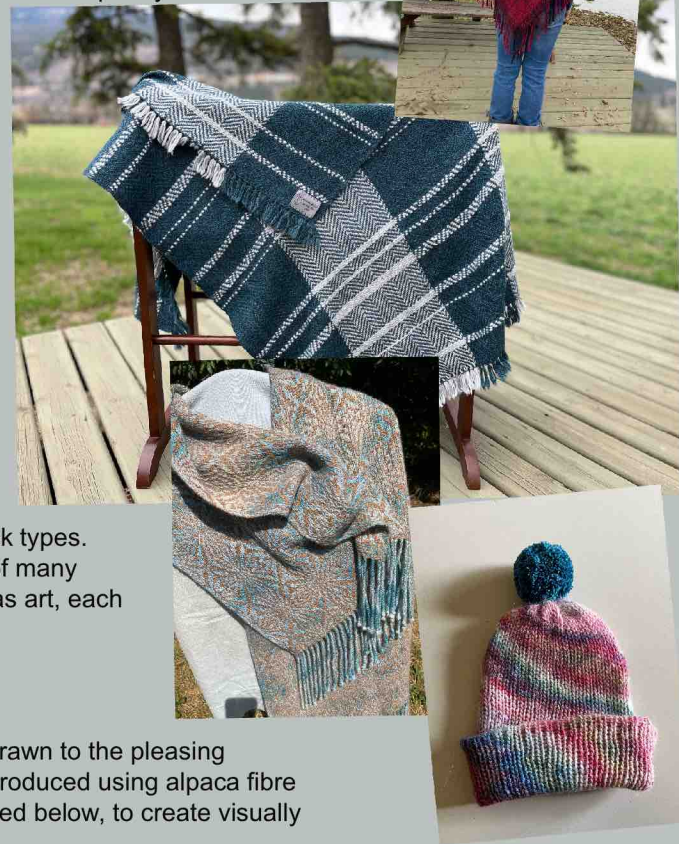


Needle felting is used to create stunning 3D figures, jewelry pieces and pictures. It is accomplished using a special barbed needle and repetitive poking to agitate the fibre.

Wet felting is done with the use of water, soap, a rough surface and rubbing action to agitate the fibres. The felted material can be shaped into various forms such as hats, boots, insoles or rugs.

Laminate felted fabric (also called nuno felting) uses alpaca fibre and a sheer base material, such as silk gauze, to create extremely versatile fabrics. These fabrics are made "by the piece" in various thicknesses and color combinations which can then be fashioned into a variety of articles of clothing.

Gone are the days when "hand- made" items were considered functional only. Natural Fibre items are now considered both fashionable and trendy. The use of alpaca fibre to produce "fibre art" is growing in popularity and is limited only by the artist's imagination, The next time you sit down to create with some alpaca fibre remember, you are a fibre artist!



THE BASICS OF SHOW RING ETIQUETTE

Showing your alpacas, whether you think your alpacas are show quality or not, is still a very important aspect of the alpaca industry.

Shows are designed to showcase our alpacas and help people realize how amazing they are.

Show Etiquette

1. Entering the Shows

The people hosting the shows work extremely hard to bring the event together for the benefit of everyone. Having your entries finished well before the entry deadline helps the show committee prepare properly and helps to avoid unfortunate errors.

2. Before Leaving Home

Make sure your alpaca's toes are trimmed.

Check their teeth. If they are even a little too long, this may make the difference for the judge in placing your animal.

Watch how they walk as this is important for conformation.

It is imperative that your animal be halter trained.

If the judge is unable to assess your animal in the show ring, it will not place as well.

3. Check in

Check in time is in place for a reason. Remember, if you show up after the deadline for check-in, someone must stay late to colour check your animals.

4. Checking in our animals

Check in is to determine the colour of your animal, verify its microchip and whether it is male or female.

5. Show ring etiquette

Wear appropriate attire - dark pants, white or light shirt with appropriate footwear. Make sure your alpaca's under the tail area is clean before going in the ring. Always look at the judge and smile.

Keep your animal between you and the judge; not the other way around.

Never turn your back to the judge, even when they are looking at someone else's animal.

Give the judge your full attention when they are looking at your alpaca or giving oral remarks.



GLOSSARY OF ALPACA RELATED TERMS

Ac: Alpaca Canada.	Breed: A race of animals within a species. Animals of the same breed usually have a common origin and similar identifying characteristics.	Combing: Preparing fibre for spinning by combing, which can then be used by hand spinners or mill machines. It results in fibres that are all parallel and removes any short fibres. It is the preparation for worsted-style spinning
Agistment: An arrangement in which an alpaca owner boards the animal at a location other than his own property.	Breeding objective: (1) A weighted combination of traits defining aggregate breeding value for use in an economic selection index. (2) A general goal for a breeding program a notion of what constitutes the best animal.	Confirmation: The shape and contour of the alpaca, resulting in the appropriate arrangement, or balance, of all body parts
Alpaca: Small, domesticated, fleece-bearing member of the camel family, native to South America.	Breeding value: The value of an individual as a (genetic) parent.	Congenital: Present at birth, not necessarily heritable
Altiplano: The high plateau of the Andean Mountains of Chile, Peru and Bolivia.	Breech: Abnormal birth presentation in which a cria's rear legs or rear end are presented first.	Cotting: Matting of Fibre
AOA: Alpaca Owners Association inc, (United States).	Britche: Hindquarter	Cria: The name given to an alpaca or llama who is less than one year old.
Apron (bib): The chest area of an animal that may exhibit longer, coarser fiber than that found on the neck and shoulder.	Camelid: (Camelids) Member of the camel family which includes alpacas, llamas, camels, guanacos and vicuñas.	Crimp: Corrugated wave formation in a lock of fibre. Like any wave formation it can be described by its amplitude (the depth of the wave) and its frequency (how many waves per inch)
Artificial insemination (AI): A reproductive technology in which semen is collected from males and used to inseminate females. AI is currently experimental in alpacas.	Carding: Preparation of fleece by either hand or machine to align fibres for spinning.	Curl: The spiraling, lustrous ringlets in suri fibre.
Batt: A sheet of carded fiber, approximately 1/2 to 1" thick, and several feet long. The batt can be felted, or strips can be torn off and spun.	Character: (Referring to fleece). Term used for combined reference to degree of crimp and definition of staple within the fleece.	Dam: A female parent
Blanket: The prime fleece on an alpaca. It extends from the base of the neck to the tail and down the flanks close to the belly.	CLAA: Canadian Llama and Alpaca Association.	Density: The number of fibres per unit of measurement on an alpaca's body.
Berserk male: An adult male that exhibits aggressive behaviour toward humans associated with inappropriate socialisation as a cria	Classing: The grading and sorting of fleeces into similar batches based on characteristics such as micron, color, handle and staple length.	Dehairing: The process of removing the guard hair from the fleece. The machine that does this is called a fibre separator.
Bird's nest (hay mow): A small portion at the fleece that is found at the base of the neck which often becomes highly contaminated with hay or other feed materials. It may extend along the backline of the animal. It should be removed and makes good compost.	Clip: The total amount of fiber harvested by a farm in a single shearing season.	DNA: Deoxyribonucleic acid, the basic hereditary unit that forms the genetic code.
Bloodline: Breeders term that alludes to pedigree.	Co-efficient of variation (CV): In fleece testing, this is the standard deviation, divided by the average fibre diameter, multiplied by 100 to be expressed as a percentage. It is a way of comparing uniformity between fleeces.	Dystocia: Difficulty in giving birth or being born.
	Colostrum: First milk from the dam, usually having a high concentration of antibodies.	Embryo Transfer: A reproductive technology in which embryos from donor females are collected and transferred to recipient females.

Estimated Breeding Value (EBV):

An estimation of the genetic value of a parent based on performance data

Failure of Passive Transfer:

Inadequate absorption of immunoglobulins by a cria from colostrum within the first 24 hours following delivery.

Felt:

The result of fibres sticking together to form a matted material. It is usually caused by heat, moisture and agitation; but can be just from agitation, such as a needle felting-where repetitive poking of the fibre with a needle will result in felting.

Fibre:

The fundamental unit used in the fabrication of yarn and fabric.

Fineness:

A measure, in microns, of the diameter of individual fibres. Most often expressed as an average for a representative sample of fibre. Fineness in one of the chief grading or classing criteria for alpaca and is the main determinant of its value.

Fleece:

The fibre from an alpaca. The term is also used to refer to all the fibre shorn from a single alpaca at one time.

Fleece Weight:

The weight of an entire shorn fleece

Follicles:

The fluid-filled structures in the ovary containing eggs-a source of estrogen

Follicular Wave:

Pattern of development and regression of ovarian follicles: if the animal is not mated and ovulation does not occur, the mature follicle regresses (dies) and new follicle(s) develop.

Gelding:

A male whose testicles have been removed, rendering him incapable of reproduction. Male alpacas are typically gelded at between 18-24 months of age. Gelding before age 18 months is thought to result in disproportionately long legs

Genotype:

(1) The genetic makeup of an individual.

(2) The combination of genes at a single locus or at a number of loci.

Guanaco:

A wild member of the New World camel family

Guard Hair:

Also called kemp. It is a coarse medullated fibre.

Handle:

The way alpaca fleece feels when touched - sometimes used interchangeably with softness.

Hembra:

Female Alpaca

Herdsire:

A male alpaca used for breeding

Histogram:

A graphical display of tabulated frequencies with the variable of interest, such as fibre diameter measured in microns, placed on the horizontal axis and the frequency value, such as the percentage of fibres per micron, placed on the vertical axis.

Huacaya:

A breed of alpaca characterized by fleece that grows perpendicular to the skin, giving a "fluffy teddy-bear" appearance.

Immunoglobulins:

Antibodies, sometimes also called IgG.

Induced Ovulators:

Mating stimulus is required for release of an egg from the ovary.

Kush:

Resting position in wherein the alpaca's legs are folded in thirds under it. The alpaca may assume this posture to avoid moving, and the female sits this way when receptive to breeding.

Lama:

Term used to refer to both the llama and the alpaca.

LH:

Luteinizing hormone, a pituitary hormone released in response to mating in camelids, stimulating ovulation.

Lock:

An organized cluster of fibres, in size anywhere from a noodle to a man's thumb. In a Sufi, the fibres may twist together to form a ringlet.

Loft:

The springiness in fibre as it returns to normal after being squeezed; sometimes used synonymously with fluffiness.

Luster:

A glowing sheen that is desirable in alpaca fibre

Macho:

Male alpaca

Meconium:

The first fecal material passed by the cria after birth. It usually has a dark tarry appearance.

Medulla:

The hollow core found in coarse guard hair fibres, often found in the chest and underbelly portions of the fleece

Medullation:

(1) Medullation is a hollow or partially hollow core in an animal fibre. (2) the degree to which of fleece contains medullated hair.

Micron:

A measurement of fibre diameter, equal to 1/1000th of a millimetre or 1/25,000th an inch. Used to refer to the fineness of fiber: a smaller micron equals finer fibre.

Midside:

A point approximately midway between the front and rear legs and just lower than halfway down the side of an animal.

Nep:

A small tangle in fibre, or very short piece of fibre clinging to yarn

Noil:

Short fibres or small pieces of fibre removed in the combing process.

Orgle:

Characteristic rapid, grunting sound made by breeding males during copulation.

Paco Vicuña:

A cross between a vicuña and alpaca

Parturition:

The process in giving birth; also called birthing

Pastern:

Region of foot from the fetlock to the ground

Pedigree:

A recorded list or genealogy of an alpaca ancestors. A registered or recorded known line of descent.

Phenotype:

The appearance of an animal; a collection of observable characteristics.

Prickle:

The quality in fleece or fabric that causes itchiness against human skin.

Prime Fleece:

Sometimes used synonymously with blanket or saddle, refers to the best fibre from an animal.

Proven Female Alpaca:

A female that has already had a cria. Proven producers are considered to be fertile.

Proven Male Alpaca:

A male that has impregnated a female.

Purebred:

Wholly of one breed or line (as opposed to crossbred)

Quechua:

A group of Indian peoples of central Peru, original founders of the Incan civilization today, the Quechuan people are the primary shepherds of alpacas in the Altiplano

Registry:

The registry records and maintains data on pedigrees, blood typing, registry numbers and other vital information on registered alpacas. It issues registration certificates.

Retained Placenta:

An placenta that has not been expelled by six hours post-partum.

Roving:

A long strand of fibres that have gone through the carding process.

Scales:

Microscopic flattened ridges covering the surface of alpaca fibre. The height and frequency of scales contribute to the feel of the fiber, and also the ability of fibres to bind together in spinning and felting.

Second Cuts:

Very short fibre created when the fleece is cut twice. This can happen when the shears come away from the body of the animal leaving a ridge that is cut again. If second cuts are not removed from the fleece prior to processing, they will produce slubs in the yarn.

Shear Weight (fleece weight):

The weight of all useable fibre taken off the animal at shearing.

Shearing:

The once a year harvesting of alpaca fibres usually carried out in mid spring in order to make the alpaca cooler through the summer and allow the coat to grow back before the cold of winter returns.

Sire:

A male parent.

Skirting:

Removing the parts of the fleece that are not desirable in the finished product or will have a negative impact on processing.

Slivers:

A continuous, untwisted strand of rope or parallel alpaca fibres approximately uniform in cross-section, produced by the carding or drawing process in preparation for spinning

Softness:

See Handle

Sorting:

Separating differing sections of fleece according to their attributes.

Sound fleece:

A fleece that does not have any weakness or stress breaks.

Specialty fibres:

The fleece and fleece products of the goat and camel families, Including mohair, cashmere, angora, alpaca, vicuña, guanaco, and camel.

Spinning:

The process of twisting fibre into yarn accomplished, either with commercial machinery, a spinning wheel or a drop spindle.

Standard Deviation:

In fleece testing, this is a measure of how much all the individual fibres in a sample vary from the average.

Staple length:

The length of a lock/staple or length of shorn alpaca fleece.

Staple:

An organized independent group or cluster of individual fibres.

Stud:

Herdsire.

Style:

A term used in fleece, judging that is closely associated with crimp and character.

Suri:

A breed of alpaca, characterized by lustrous locks of fleece that lay close to the body, twisting vertically toward the ground.

Tender:

Fleece that breaks easily at one or more points along the length of the fibre. Often caused by some trauma, stress or health problems suffered by the animal at a time that correlates to the breakpoints.

Tensile strength:

The ability of fibre to resist breaking under tension.

Top Knot:

The fleece on the top of an alpaca's head.

Tops:

Continuous and twisted strand of combed alpaca fibres of which the shorter fibres have been removed by combing.

Trait:

An observable or measurable characteristic of an individual:

Uterine Torsion:

Twisting of a uterus, a problem during late gestation.

Vegetable Matter (VM):

Overall term for contaminants in fleece such as hay, wood, shavings, thistles, or other plant matter.

Vicuña:

Native South America, Camelid thought to be the ancestor of the domesticated alpaca. Vicuñas, which exhibit, the finest natural fibre in the world, can crossbreed with alpacas.

Vicuña Pacos:

The alpaca.

Weanling:

A weaned alpaca less than one year old.

Woolen:

Yarn made from fibres that are 1 to 3 inches in length and have been carded only. Fabrics of wool yarn are characterized as being fuzzy, thick and bulky.

Worsted:

Yarn spun from fibres three inches in length or longer that have been carded, combed, and drawn. Combing machines make the individual fibres lie parallel.

Yearling:

An alpaca one to two years old.