



Llama Facts for New Owners

International Llama Association Educational Brochure #3

Welcome to the fascinating world of llamas!

If you have recently purchased or are thinking of acquiring your first llama, you are joining a rapidly growing group of llama enthusiasts around the world. Llamas are delightful animals with a unique history. Though they share a number of characteristics with more familiar livestock, they have some very special attributes. This review of the important facts about llamas will acquaint you with your new family member.

Heritage

Llamas are members of the camel (camelid) family. In addition to the well-known, one-humped Dromedary camel of the Middle East and the two-humped Bactrian camel of Asia, there are four native members of the camel family in the Americas today: the **llama**, a domesticated beast of burden regarded throughout the world as the premier symbol of South American animals; the domesticated **alpaca**, selectively bred for its fine, multi-hued wool; the free-ranging **guanaco**, probable progenitor of the llama and historically common herbivore of the arid lands of South America; and the wild **vicuna** fine-fleeced denizen of the central high Andean mountains.

The term *Lama* (with one L) is used here to refer to all four South American members of the camelid family and the word *llama* is used in reference to that particular species. Though less common, the terms *cameloid* or *lamoid* may sometimes be used to indicate this group. While this brochure refers mainly to the llama most of what is said applies equally well to the growing number of alpacas in North America.

Llamas and their relatives are no strangers to our land. The camel family originated on the central plains of North America and spent their first 40 million years right here in our own backyard! Then, some three million years ago, camels migrated to Asia and Africa, while llama-like animals dispersed to South America. Just 10,000- 12,000 years ago, at the end of the last ice age, the camelids became extinct in North America. Meanwhile, in the highlands of Peru, some 4,000-5,000 years ago, llamas were domesticated, placing them among the oldest domestic animals in the world. In the late 1800s and early 1900s, private animal collectors and zoos reintroduced them to their original North American homeland. Today there are an estimated seven million llamas and alpacas in South America (in approximately equal numbers) and some 100,000 llamas and 5,300-5,700 alpacas in the United States and Canada.

Buying and Value

If you are looking for a pack animal, wool producer or pet that is easy to care for, llamas are the answer. You will generally find that females are more expensive than males. Prices vary depending upon age, health, size, wool, color, conformation and use. Llamas are by far one of the easiest to care for of any domestic livestock, and are an investment the entire family will enjoy.

Before you buy your llama, visit with and talk to as many llama owners as possible. Consult the International Llama Association (ILA) Catalog or Membership Directory for those in your region. Base your final selection on the animal(s) that most appeal to your interests as an owner or breeder. Be sure to ask the previous owner for the International Llama Registry (ILR) certificate. or date of birth and the names of its sire and dam. Contact ILR if you have questions regarding registration.

Characteristics

Whether viewed in a pasture or glimpsed in the wild, all *Lamas* have a striking beauty owing to their elegant wool and graceful posture. Llama and alpaca wool ranges from white to black, with shades of gray, brown, red and roan in between. Markings can be in a variety of patterns from solid to spotted. Little variation is found in guanacos or vicunas which are light brown with white undersides.

Mature llamas weigh an average of 280-350 pounds, but range from 250-500 pounds. Full body size is reached by the fourth year, and, while there are no obvious differences between the sexes, males tend to be slightly larger. They are long lived, with a normal life span of 15-20 years.

Like cattle, sheep and deer, llamas are multi-stomached ruminants that chew their cud. They have a hard upper gum (no upper teeth in front), grinding upper and lower molars in back, and an ingenious upper lip for grasping forage in unison with the lower incisors. Adult males develop large, sharp upper and lower canines ("wolf teeth" or "fangs") for fighting. You should ask your veterinarian to remove these to prevent injury to males pastured together or to females being bred.

The llamas' unique, specially adapted foot makes them remarkably surefooted on a variety of terrain, including sandy soils and snow. It is two-toed with a broad, leathery pad on the bottom and curved nails in front. The small, oblong, bare patches on the side of each rear leg are not vestigial toes ("chestnuts" as found on horses), but metatarsal scent glands, suspected to be associated with the production of alarm pheromones. An additional scent gland is located between the toes.

How old is your llama? Age can be determined reliably in young animals by checking the larger, permanent incisors which erupt to replace the "milk" or deciduous front teeth. The middle pair of incisors (11) comes in between 2 and 2.5 years of age, and the second pair (12) at around three years of age.

Housing and Fencing

Simple but necessary preparations should be made before you bring your new family member home. Fencing can be woven wire, cattle wire panels, wooden rails or poles, chain link or electric. Barbed wire does work but is not recommended. Your fences should be at least four feet high and dog proof if possible. A three-sided shelter to provide shade and protection from extreme heat, cold, wind and rain should also be provided. If you have severe chill factors in winter, a completely enclosed shed is necessary. Heat stress should be a concern if you have hot, and especially humid, summers at which time a sprinkler, wading pool or small pond are helpful. If your animals are kept in a large pasture, a small 12-20 foot square catch pen will make it easier to catch them. Feeding and watering troughs should be clean, high enough to be free of possible fecal contamination, and spacious enough to allow access by all animals. Fresh water should always be available. Shearing of long-wooled llamas and alpacas is recommended in excessively hot climates.

Transportation

Llamas are easy to transport and require no specialized equipment. A covered, wind-proof pickup, van, horse or utility trailer with sufficient room for animal(s) to stand comfortably works well. Good ventilation is important in both summer and winter. Straw makes excellent bedding in a wind-proof enclosure, and be sure to provide hay for food and offer water free choice at least every 6 hours depending on heat (it will spill if left with the animals). Llamas normally lie down once the vehicle starts moving. If transporting babies and mothers on long hauls, stop periodically to allow nursing.

If your new llama is coming from out-of-state, check at least four weeks in advance to see if your state requires a veterinarian-issued health certificate. A permit number and/or tests for brucellosis, tuberculosis, and other diseases may also be required. Some states may require permanent identification markings on the animals. Full mortality and/or broad named peril (including transportation) insurance is available.

Care and Feeding

If you are familiar with the care of other domestic livestock, you will find llamas comparatively easy to maintain, with a minimum of veterinary assistance required. If you are uncertain of the health of your new animal, consider isolating it in sight of, but separate from your other animals for the first two weeks to prevent accidental introduction of any illnesses, and to give you both a chance to get acquainted. Make sure it is eating and ruminating, as well as eliminating pelleted feces. If you have not already done so, this is the time to locate a veterinarian in your area. If he or she is inexperienced with llamas, information is available through ILA to handle problems which may arise. It is recommended that you have your veterinarian give your newcomer a general health check, and take a fecal sample to determine if worming is necessary.

Although llamas have long been arid land dwellers, they thrive in the wide array of temperate environments throughout the United States and Canada, including Alaska. They are highly adaptable feeders, being both grazers (grasses and forbs) and browsers (shrubs and trees). Because of a relatively low protein requirement due to their efficient digestive systems, they can be kept on a variety of pastures or hay. They eat about 2 percent to 4 percent of their body weight in dry matter every day. Without pasture, a 100 pound bale of hay will last an adult llama around ten days...good news, indeed, to experienced horse and cattle owners! If you're going to graze your llamas, plan on about three to five animals per acre on a moderate-producing pasture.

When good hay is available, grain is recommended only for working pack animals and nursing females. Sheep mineral and salt blocks (with selenium wherever necessary) should be available free choice. Granulated minerals are somewhat more wasteful than mineral blocks, but are easier to eat since llamas can't lick. High-protein grain mixes prepared for other livestock should

generally not be given to a healthy llama on a good diet, unless it's a female nursing or close to giving birth. Llamas are not prone to bloat, but have been known to do so if they get into a grain bin. Avoid over feeding llamas.

Llamas require less water than most domestic animals, but should have an unlimited, fresh, clean supply at all times. They tend to drink less in winter and when on lush, green pasture, and more when working or lactating, especially in summer.

Unless your llamas are pastured on hard or rocky ground, you may have to trim their toenails once or twice a year. It's easy to do yourself with horse hoof trimmers or sheep toenail nippers, but consult available literature or your veterinarian before your first attempt

Llamas are amazingly hardy animals and have very few problems with disease. But to ensure good health you should establish a regular schedule for cleaning their dung piles, and a preventative medicine program which may include protection from enterotoxemia, tetanus, leptospirosis, and internal and external parasites. They should be dewormed at least every six months. Be sure to check with your veterinarian or agricultural extension agent to see if any vital trace elements or minerals are deficient or present in toxic amounts in your area. Consult your veterinarian or local ILA affiliate for other preventative medical suggestions, or to see if any special circumstances (e.g. meningeal worm, selenium levels, toxic plants, etc.) are problems in your area.

Habits and Behavior

Llamas have a dignified, aristocratic manner about them. Because of their curiosity, they have a delightful habit of coming close to sniff strangers. But despite your natural temptation to hug and cuddle them, they prefer not to be petted except on their necks and woolly backs. You need have no fear of children around them, as they are gentle and don't spook easily, and rarely bite or kick unless provoked. They are highly social animals and need the companionship of another llama or other grazing livestock.

Llamas communicate their moods with a series of tail, body and ear postures, and vocalizations. Learning this llama language is one of the joys of ownership. Humming is a common manner of communication between llamas, and indicates a variety of moods from contentedness to aggression. Another interesting llama expression is the shrill, rhythmic alarm call emitted at the sight of a strange animal (especially dogs) or a frightening situation. Spitting, usually related to food disputes, is seldom directed at people unless a llama has been mishandled or become imprinted on people through bottle feeding as a baby. As with bottle-fed stallions, bulls and rams, bottle-fed male llamas who have not been gelded at an early age can be dangerous as adults, because they lack a normal fear of people and regard them as competitors.

Llamas are remarkably clean, and even large herds are quite odorless. Dung-piling behavior is an important means of spatial orientation and territorial marking for these historically open habitat animals, and a convenience when you clean their pens. By taking advantage of this habit you can encourage your animals to establish dung piles in a new pen by "prebaiting" four to five sites per acre with a shovel full of llama pellets. You may frequently see your llama rolling in the dirt, taking a dust bath to help maintain a healthy, fluffy coat of wool.

Breeding and Reproduction

Female llamas are good mothers and there is nothing as delightful as the sight of their babies playing and romping. Though females have been known to conceive as early as four to six months, they should not be bred until 18-24 months depending on size and development. While males may be fertile at seven to nine months, they aren't fully dependable breeders until three years old when they are socially and sexually mature. Llamas breed in a prone position (male on top), and copulation may take up to 45 minutes. The act of copulation induces ovulation (i.e. they ovulate 24-36 hours after mating). Gestation averages 350 days and a single offspring is produced; twinning is rare. The average weight of a normal newborn llama is 25-30 pounds, but can range from 18-40 pounds.

Because they are induced ovulators, llamas can give birth throughout the year. Depending on your climate, you should plan breeding to avoid births in the extreme heat of summer and cold of winter. Births normally occur in the daytime. From the onset of normal presentation (of both feet and head) to birth, 10-45 minutes may elapse. Unlike most mammals llama mothers do not lick their newborn nor eat the afterbirth. Llama young, called "crias" in South America, begin walking within an hour and should nurse in one to two hours. The placenta is usually passed within four hours. Females are normally bred back three to four weeks after giving birth, and pregnancy can be determined 21 days or more after breeding through an inexpensive laboratory test for progesterone from a small blood sample. Another indication of pregnancy is the female's refusal to breed when reintroduced to the sire.

Llamas, guanacos, alpacas and vicunas can interbreed and should therefore be pastured separately. Males not intended for breeding are gelded at about two years of age, and males which have had to be bottle-fed must be gelded as early as possible, to avoid abnormal behavior. Geldings can make wonderful, affectionate pets.

Uses and Training

"What are they used for" is a question commonly asked of llama owners. Breeding, packing, wool production, companion animals and sheep guarding head the list of common llama uses. Because they are so gentle and easy to train, llamas are popular attractions in parades, shows, fairs and community events, and are fun to take on school, hospital or nursing home visits. Llamas and guanacos are becoming increasingly popular for guarding sheep from coyotes.

The llamas' centuries-old ability as a beast of burden has been rediscovered by hikers, hunters and forest work crews in North America. Their hardiness, surefootedness and common sense make them an excellent pack animal and trail companion. They are quiet, unobtrusive and so easy to manage that children love to lead them. Their great agility allows them to negotiate terrain that would be difficult or impossible for traditional pack animals, and, because of their padded feet and ability to browse, they have minimal impact on the backcountry. When confronted by other pack stock, unexpected situations, and sudden movement or noises, llamas remain calm and unruffled. Males are most commonly used for packing, and, depending on maturity, weight and condition, will tote 50-120 pound packs 6-15 miles a day. An animal's performance is always relative to training, fitness and trail condition. A variety of custom packs and halters are available for llama use.

Camelid (especially alpaca) wool production is a multimillion dollar industry in South America, making these animals appealing to spinners and weavers here. Llamas have soft, fine wool, for protection against cold and insulation from heat, which can be made into beautiful garments and blankets. Llamas hand-shorn every other year will produce a grease-free fleece weighing three to eight pounds with a fiber length of four to seven inches. Year-round brushing yields about the same results and leaves the long, coarser guard hairs in place.

Their docile nature makes llamas extremely easy to train to accept a halter, lead, kush (lie down), carry a pack, load in and out of a vehicle, pull a cart or carry a lightweight rider. With just a few repetitions they will pick up and retain any of these skills. Llamas with minimum training are easy to handle when you are trimming nails, brushing or shearing, or when health problems necessitate touching them in sensitive places.

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