



**Llama Association  
of Australasia Inc.**

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# LLAMA BUYERS' HANDBOOK



Produced by Llama Association of Australasia Inc.

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## INTRODUCTION

Llamas have become increasingly popular in Australia and this document has been developed by the Llama Association of Australasia Inc. (LAA) as a guide for people interested in purchasing these animals.

With the amount of investment (time, emotions, monetary, etc.) involved in buying a llama, the Association feels that potential buyers should be aware of what to look for, what questions to ask and where they can obtain additional information.

Llamas (single "l"), which include the llama (double "ll"), alpaca, guanaco, vicuna and all their crosses, are members of the camelid family. All except the vicuna, which is a protected species in its native land, can be found in Australia. The alpaca is farmed mainly for its fibre, whilst the llama, guanaco and their crosses are used for a whole range of purposes.

When deciding to purchase a llama, it's important to firstly have a clear picture in your mind what function you want the animal for, and secondly, to be able to examine the animal to assess its ability to carry out that function. It should also be noted that llamas are herd animals therefore two or more is an appropriate number. Llamas are also one of the most environmentally friendly livestock you can have being soft footed, browsers, with communal poo piles as well as suited to small acreage.

## LLAMA USES

The llama has traditionally been a "beast of burden", but due to its temperament, size and ease of training they can be used for a number of purposes such as an investment, companion animal, packing, carting, breeding, stock guardians, show animals and fibre producers.

### Companion Animal

As these animals are extremely intelligent and have individual personalities, they make great paddock pets, and geldings (neutered males) are ideal choice as they are less expensive than stud quality males or breeding females. However, this does not prevent making a companion animal out of a breeding animal or out of a llama you have bought for another purpose.

Animals that do not have perfect conformation, are a little smaller than average, or whilst sound and healthy, or are not a perfect example of the breed, can be ideal for this purpose. The main criteria are personality, ease of handling and your personal likes as far as type and colour are concerned.

### Packing

An animal selected for this purpose should be easy to handle and have a willingness to work. As a general rule of thumb, a llama can carry 20 - 25% of its ideal body weight. If you want to carry big loads, such as on a camping trip, you should select a large athletic animal. If you want to carry small loads, such as picnic lunch, then a smaller, well conformed llama will do the job. Another consideration is whether the handler is small or inexperienced. In these situations, a well-trained animal may be easier to handle.

Short wool llamas are often used for packing, but there is nothing to stop you using woolly llamas, and if you think excessive fibre is a problem, the animals can be shorn.

## Carting

Traditionally, llamas were used for packing, but because they are easily trained, can be taught to pull a cart. Driving prospects should meet the same criteria as pack animals, but must also be calm, compliant, and very willing to walk, jog and run on command. A slow/unhappy llama, or one that is easily startled or distracted, is not an enjoyable or safe choice for driving.

## Breeding

Before buying breeding stock, decide what type of animal you want in your herd and the purpose you are breeding for. Do you want to breed animals for a specific task, such as performance or fibre, or do you want to breed for an all-round animal? Whatever the reason, the animals should be reproductively sound with correct conformation.

Whether you buy a mature breeder, where you may be able to see its previous progeny, or one that is sexually immature, aim to obtain a fertility guarantee.

## Stock Guardian

Most of the llama species will guard stock against predators such as foxes. They are being used effectively across Australia to protect new born lambs.

If you are purchasing an animal with this use in mind, it's better to go for a gelded male or female over two years as they do not become fully protective until then. Entire males should never be used as livestock guardians.

## Showing

At the moment, there are very few if any show (conformation and performance) classes for llamas around the country. It is very popular in North America where llama shows and performance trials have a large following.

However, participation in agricultural shows as a display provides a great opportunity to showcase these wonderful animals.

## Fibre Production

Of the four llama species, the alpaca is the main fibre producer. However, the vicuna and guanaco have fleeces finer than the alpaca, and the llama's undercoat, which is 80% of the fleece, can be as fine as most alpacas. In North and South America, the fibre is used for a wide range of clothing and accessories.

When selecting for fibre production, look for an animal with as uniform fleece as possible with minimum guard hair (coarser outer hair).

## Investment Potential

There is interest in llamas throughout Australia as more and more people learn about these lovely animals. Demand often outstrips supply. Llamas take nearly twelve months to give birth and very seldom have twins. Importation of new blood lines into Australia has been limited in recent history. Due to these two facts, the national herd has not and will not increase quickly and so demand will exceed supply for some time. Llamas also have been proven very beneficial in a

number of tourism ventures from walks/packing to farm visits and educational sessions to wedding participants and stock guardians.

### In Summary

When you have decided on the purpose or purposes you want your llamas for, the next step is to decide what age and sex of animal you will purchase.

Geldings which tend to be less expensive than females are often ideal for pets, fibre producers, or working animals. Stud quality males and breeding females, although more expensive, can still be used for other purposes. However, be aware of the need for paddock separation to restrict unplanned breeding.

The next step is to decide what age of animal you want. Do you want to buy a young animal and watch it grow, and be able to train it? Or do you want an adult that is ready to work, or a breeding animal that is close to giving birth? Also, the colour of the coat and the length of the fibre need to be considered. Crias should only be purchased when they are least 6 months old and weaned. It is recommended, due to health concerns, that male llamas are only gelded after they turn 18 months old.

It's only when you know the answers to these questions, that you are ready to purchase.

## LLAMA MAIN CHARACTERISTICS

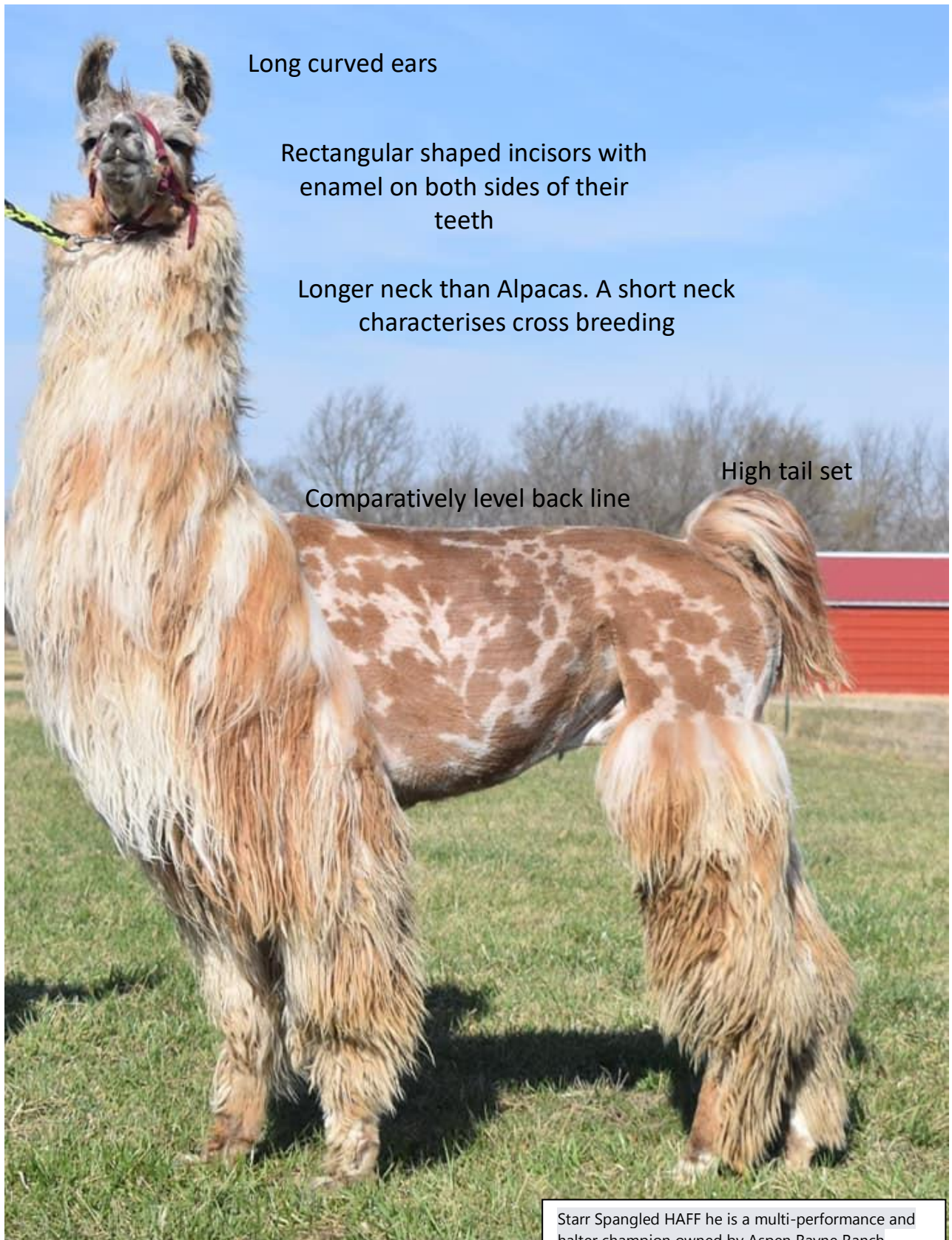
There are major differences between the species and quite a few variables within the different characteristics. Each of these species can interbreed with each other and the crosses between the llama and the others are called by the names of the various species. For example, a llama crossed with a guanaco is referred to as llama/guanaco cross. This applies to all but the llama/alpaca cross which is referred to as huarizos or mists. Cross breeding is not a supported practice.

It must be remembered that as llamas are herd animals, never buy a llama to be kept on its own. Llamas will bond to other herd animals, but prefer and are happier with their own kind.

The following describes the main characteristics of a llama and differences between the species:

Llama	Guanaco	Alpaca	Vicuna
<ul style="list-style-type: none"> <li>• Long curved ears</li> <li>• Enamel on both sides of teeth and rectangular shaped incisors</li> <li>• Comparatively level backline</li> <li>• High tail set</li> <li>• Longer neck than alpacas.</li> <li>• Fibre average count of 25 to 31 microns</li> </ul>	<ul style="list-style-type: none"> <li>• Long speared shaped ears</li> <li>• Long tapered face</li> <li>• Teeth same as Llama</li> <li>• Slightly curved back line</li> <li>• Lower tail set and a longer tail</li> <li>• Cinnamon in colour with greyish face and white blaze down the front of its neck</li> <li>• Fibre average count of 18 to 24 microns</li> </ul>	<ul style="list-style-type: none"> <li>• Short spear shaped ears</li> <li>• Enamel on front side of incisors and rectangular shaped teeth.</li> <li>• Curved backline</li> <li>• Very low tail set</li> <li>• Fibre average count of 18 to 24 microns</li> </ul>	<ul style="list-style-type: none"> <li>• Short pointed ears</li> <li>• Long tapered face</li> <li>• Teeth same as alpaca</li> <li>• Slightly curved back line</li> <li>• A low tail set</li> <li>• Have a characteristic white bib or apron of guard hair</li> <li>• Fibre average count of 11 to 14 microns</li> </ul>

Llama	Guanaco	Alpaca	Vicuna
<ul style="list-style-type: none"> <li>• Generally taller than 100 cm from ground to withers</li> <li>• Weight greater than 120 kg</li> </ul>	<ul style="list-style-type: none"> <li>• Generally, taller than 95 cm from ground to withers</li> <li>• Weight between 99 kg and 110 kg</li> </ul>	<ul style="list-style-type: none"> <li>• Generally shorter than 95 cm from ground to withers</li> <li>• Weigh between 60 kg and 70 kg</li> </ul>	<ul style="list-style-type: none"> <li>• Generally, shorter than 85 cm from ground to withers</li> <li>• Weight between 50 kg and 55 kg</li> </ul>



## CONFORMATION

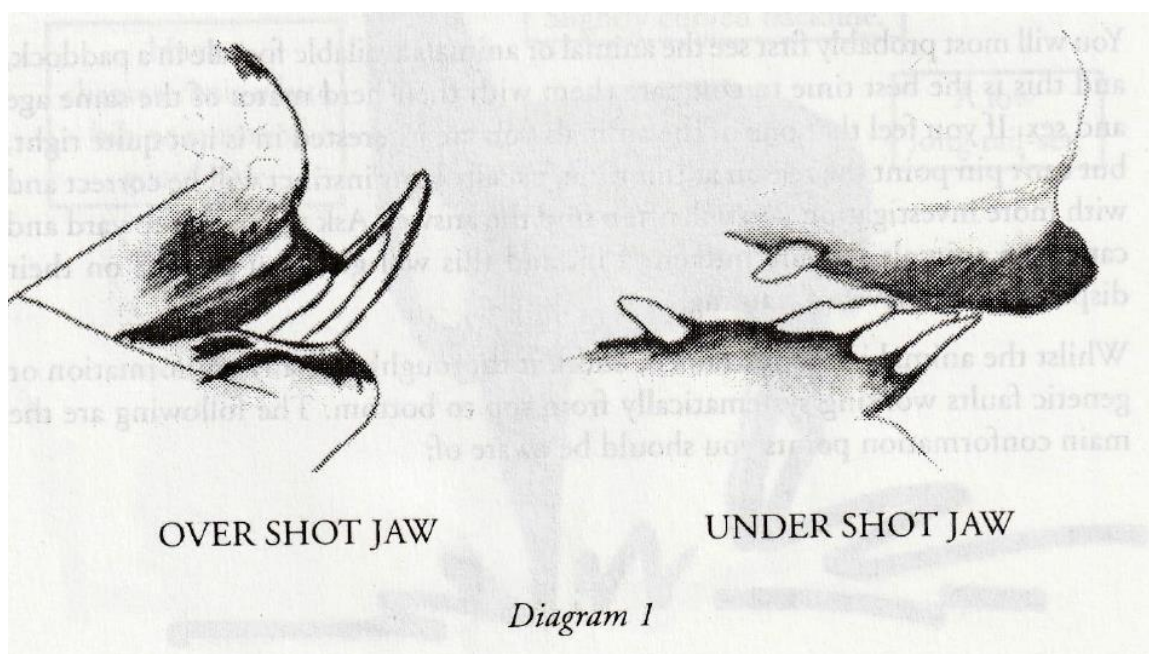
When selecting an animal, no matter whether it's pure or cross bred, it's important to check if it has any conformation or genetic faults.

You will most probably first see the animals or animals available for sale in a paddock, and this is the best time to compare them with their herd mates of the same age and sex. If you feel that one of the animals you are interested in is not quite right, but can't pin point the reason at this time, usually your instinct will be correct and with more investigation you will often find the answer. Ask the owner to yard and catch the animals you are interested in, and this will give you an idea on their disposition and level of training.

Whilst the animal is still restrained, check it thoroughly for any conformation or genetic faults working systematically from top to bottom. The following are the main conformation points you should be aware of.

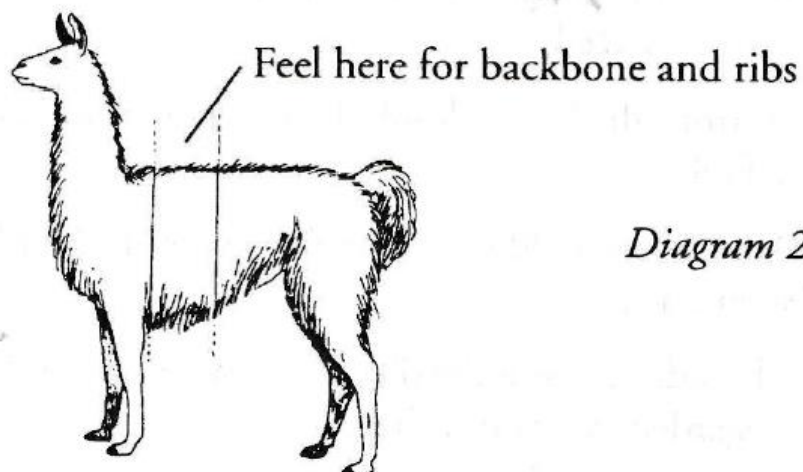
### Head

- The eyes should be clear and not cloudy. The eyelids should not be dropped (ectropia, genetic defect). In times of stress, the eyelids can show the same signs but this should not be confused with true ectropia.
- Blue eyes combined with a white/blue merle colour fibre, chances are that there may be a deafness issue – easy to test for – animal should not be used for breeding.
- The front teeth should be in line with the top pad. A slight deviation each way is acceptable. An under or overshot jaw where the teeth are right under or over the top pad is a genetic fault (diagram 1).
- The ears should be erect. If one or both ears are held abnormally, this could indicate internal ear problems.
- Short, pointed, fused or pocket ears are all genetic defects.



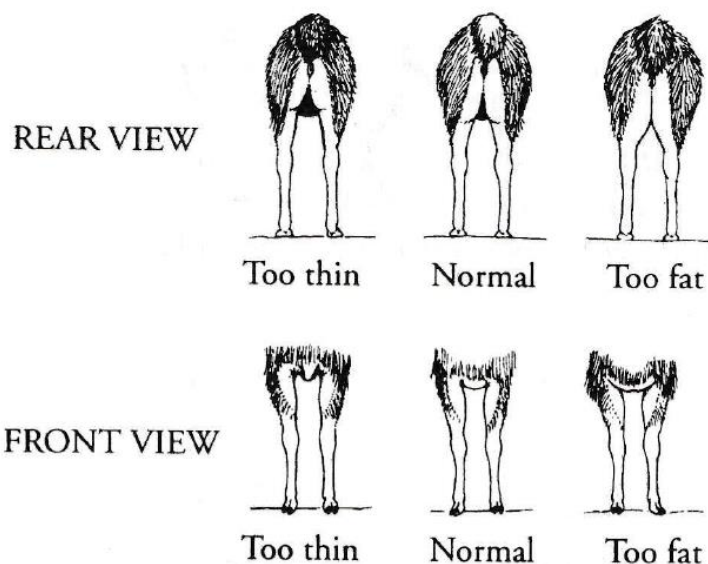
## Body

- The back should be straight, not swayed or humped.
- Feel the backbone to get an idea of the animal's condition (diagram 2). The body score is most commonly achieved by putting the base of the palm of your hand on the animal's backbone. In this position, laying your fingers down on the animal's side, you should find your hand at a 45 degree angle to score the animal at appropriate condition (5). If the angle of your hand is more, score a 2 - 4, or even a 1 if extreme indicating a poor and thin body condition. If your hand is less than a 45 degree angle, you will have a score of 6 - 10 indicating your animal may be overweight.



*Diagram 2*

- Check the condition of the thighs and the chest (diagram 3).
- If the animal is over fat, it's usually easy to rectify this problem, but if the animal is too thin, it could indicate one of two things: either the animal is under fed, which can be fixed, or it could indicate the animal is sick or recovering from an illness. If concerned, get a vet's advice prior to purchase.
- Look and feel under the belly for an umbilical hernia (soft swelling). These are usually operable, but again, consult your vet.
- Check the neck for general balance and centering. Any kinks or lumps in the neck could indicate old injuries.

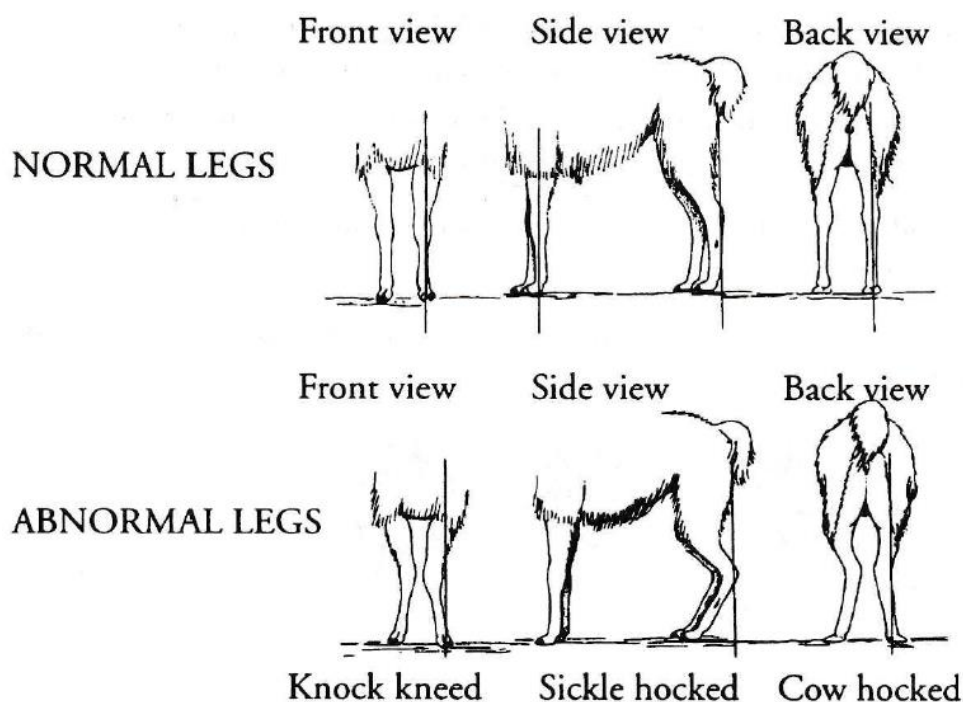


*Diagram 3*

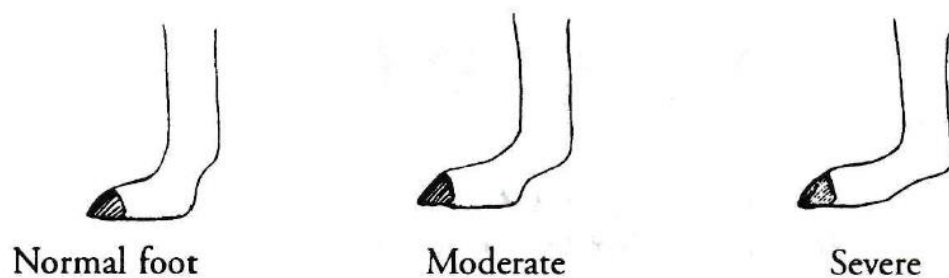
For a complete guide to body scoring we recommend *How To Body Score Your Llama or Alpaca* (shagbarkridge.com) which explains how to perform a detailed assessment.

### Legs and feet

- Examine all four legs for indications of recent surgery or injury. If you find a bump or lump and think it's abnormal, check the same part on the corresponding leg.
- Front legs should be reasonably straight when viewed from the front although most llamas are slightly knock-kneed.
- Back legs, when viewed from the back should be straight. Knock-kneed back legs (cow-hocked) are a fault.
- Back legs viewed from the side should be reasonably straight. Bent legs (sickle hocked) are a fault (diagram 4).
- Also best viewed from the side are the animal's ankles. When the foot is down at the ankle (fetlock) it is regarded as a fault (diagram 5).
- Extra toes, more than two (polydactyl), or fused toes (syndactyl) are both genetic faults.



*Diagram 4*



*Diagram 5*

## REPRODUCTIVE ORGANS

- Check the udder – if she’s had mastitis in the past, one or more of the four quarters will be enlarged and this could indicate that when she gives birth again those damaged quarters will not produce milk and so affect the ability of the new cria to grow normally.
- The vulva should lie flush with the body and not protrude as if on a shelf. If it does protrude, this is a genetic defect, and animals with this fault can get infections from faeces contaminating the vulva, but because the faeces are pelletised, it’s rare.
- In males, the size and placement of the testicles are very important. If one is missing or misplaced, it is genetic fault. Where one is smaller or they are both small, this is also a fault. When breeding with a male that has this problem it is possible the offspring, whether male or female, can have reproductive problems. An adequate size for an adult llama’s testicles is as follows: length 5 -7 cm, width 2.5 – 3.5 cm and depth 3 - 4 cm.
- When checking the animal, you have to take all these factors into account and remember that no animal is perfect. You have to balance out what qualities are not quite right with those that are, keeping in the back of your mind the purpose you are buying the animal for. If, for example, you are buying a male for packing and it has faults with its testicles, this is not a problem, as it won’t hinder the animal for the purpose it was purchased for.

## QUESTIONS THAT SHOULD BE ASKED

1. The animal’s age. From this information you can get an idea of whether it is the right size for its age, especially when you compare it with others of similar age. If it’s a female, this information will give you an idea on how much more productive life she has left. You can expect, all things being equal, for these animals to reproduce up to and beyond fifteen years of age.
2. Ask to see the sire and dam (parents) of the animal, and if possible, its brothers and sisters, as this is one way of assessing the quality of the animal.
3. If it is a pregnant female, when is she due to give birth, and when did she have her last cria and were there any complications and successful live birth? The normal gestation period is about 350 days. By working out the date she conceived and comparing it with when she had her last cria, it will give you some idea if the animal had trouble getting pregnant.
4. If it is a proven sire you are looking at, ask to see its previous cria and their dams. This will give you some idea on the type of stock he produces.
5. If your chosen animal is a breeding female, ask if it has reared cria before without any problems. An animal can be reproductively sound in every way, but for some reason, not produce enough milk for her cria to grow to its potential. You might get a good idea by looking at past cria, but remember, they could have been hand-reared.
6. Ask if your selected animal has been hand-reared. If a llama, particularly a male, is hand-reared or in early stages of maturity with excessive human affection and minimal herd contact, it can imprint on humans. This can lead to behavioral problems as an adult. In the extreme, males can become dangerously aggressive towards humans. This behavior in a male is called “Berserk Male Syndrome”. However, if the cria is hand-reared with minimal human contact and remains within the herd, later behavioral problems can be avoided.

Gelding before sexual maturity is another way of averting this behavior. Gelding later on generally has minimal effect.

7. Be sure to ask if the animal in question has any temperament problems. In a lot of instances these cases can be corrected by training. However, if you are a first-time owner with little stock experience, it would be better to get an animal that is easily handled.
8. Is the animal halter-trained? If you are buying your first llama, for whatever purpose, it will make life easier if it's already trained.
9. Is the llama microchipped? If so, ensure you are provided details of the number and which company/association they are registered with. Also agree whether the seller or purchaser will advise change of ownership.
10. Is the llama registered with a breed organisation eg. LAA or International Llama Registry? If so ensure that registration certificates are provided and transfer of ownership signed.
11. Vaccinations and parasite control. Most herds are on a health program and it's essential to get this information so you can carry on the program when you get your new animals home.
12. This is also the time to ask about how to care for your new llamas and what facilities you will need to look after them properly. The seller should provide information relating to appropriate reference books and website links for future reference.
13. Consider your own situation and investment you are making in purchasing llamas to decide whether you should ask the owner to provide a certificate from their vet clearly describing the health status of the herd and property from which you are purchasing. In particular, you should satisfy yourself of the Johne's Disease status of the animal you are buying and implications for llamas and other livestock on your property if you introduce the animal into your herd. If you are not familiar with such matters discuss them with the Department of Agriculture veterinary officer in your district. It is always a good idea to isolate your new llamas away from any other llamas or livestock for a period on arriving at your location.
14. Some additional checks to consider:
  - a. Check ancestry details as it is critical for any breeding program to ensure appropriate blood lines and avoidance of line breeding.
  - b. If you are importing livestock from interstate or overseas check border controls and movement requirements – some States have stringent controls and prerequisites that can add time and money and may even preclude you from importing the llamas.
  - c. Are there other sellers/breeders you can talk to?
  - d. Is the seller a member of a breed association and/or LAA?
  - e. Will there be a contract of sale clearly articulating buyer and seller requirements and after sales service/support? Clarify degree and availability of after sales service/support eg. future health advice, etc.
  - f. What equipment is included in the sale or for sale eg. halters, leads, etc.

## OTHER ITEMS TO CONSIDER - YOUR ONGOING BUDGET AND PROPERTY

- Always check that your property is approved for the livestock type with respect to local council planning requirements.
- Will there be sufficient area for llamas to roam and play – small areas will lead to stress and boredom.
- Access to appropriate quality fresh water. Don't forget to test any dam water for minerals/salt. If you can't drink it then reconsider their water supply. Estimate 5 - 8% of their body weight for consumption of water per day.
- Will there be sufficient food – but not too rich as llamas will put on weight which will lead to health and potentially breeding issues if the pasture/hay is too rich. You should consider the need to purchase/supply hay in your budget. A rule of thumb would be two llamas to an acre. However, it will depend on the pasture conditions throughout the year. You may have to supplement with hay at minimum during winter. It will be important that pasture is managed to ensure appropriate quality of food and parasite control. Rotation through other paddocks is an appropriate method and regular weed control will be required. Llamas are primarily grazers and eat small amounts of a wide variety of plants. Llamas should ideally be pasture fed at all times. They rely on foregut fermentation and chew the cud, like sheep and cattle, to extract nutrients from feed. They prefer shorter pastures but will graze longer grass if this is all that is available. The quantity eaten will vary considerably and is dependent on the digestibility of the pasture (actively growing, green grass/legumes before flowering are the most digestible) and also on the animal's physiological status – lactating females will have a much higher nutritional requirement. Llamas will do well on high quality native pastures or most introduced species.

When the quality or quantity of pasture is limited, llamas may be supplemented with good quality hay and/or high energy or protein feeds such as cracked lupins according to their physiological state (eg. pregnancy, lactation, growth, maintenance). Llamas can also be supplemented using a commercial mix or pellets designed for camelids. However, ensure that you feed as per manufacturer recommendations. Roughage/fibre in the form of hay may be required especially if pasture is very short or has a high water content.

Vitamin supplementation - water-soluble vitamins (eg. B and C) are provided by the microbes that live in the fore-stomachs, so healthy llamas do not require supplementation. Fat-soluble vitamins (A and E) are available from green vegetation so only need supplementation if pasture is completely dry for more than 8 - 10 weeks. Vitamin D supplementation is required in llamas. Cria and young llamas are susceptible to rickets and white muscle disease (selenium deficiency) with breeders routinely supplementing their animals according to the requirements of their particular region. ADE vitamins help prevent rickets, limb deformities and joint pain especially in growing animals.

- Fencing - even though they can jump fences, llamas mostly respect barriers. Therefore, a standard livestock fence should be adequate. Barbed wire should not be used as it will present a significant risk of injury.

- Llamas require shelter from sun, wind, rain despite their hardiness. Open fronted horse shelters are an example and are advantageous and sometimes even essential when weather is continually wet and windy at low temperatures or when there is a health issue. At minimum they should have access to wind breaks and sun protection.
- Adequate areas to ensure separation of breeding males and females. Usually at minimum a paddock/laneway between them.
- Think about an area set aside for maintenance and health checks and movement of your llamas from paddock to that area. Consider a laneway system or method of easily herding them to appropriate area and catch pen.
- Think about what other equipment you may need - crush for handling, float for transportation, portable pens etc.
- Additional ongoing requirements which must be completed to ensure health and ongoing quality of life for your llamas relate to vaccinations, worm testing, toe nail clipping and shearing.

## PURCHASE AGREEMENT

When the decision to buy has been made there are a number of terms, conditions and guarantees that have to be worked out and these should be written down.

- Vet certificate. It is important to consider obtaining a vet certificate before purchasing any animal. This will cover a lot of things you have already checked, but particularly will ensure that the animal in question does not have a defective heart or lungs. Also, a vet certificate is necessary should you decide to take out injury/death insurance for the animal. This will usually be at the cost of the buyer.
- If you purchase, make sure it is fully understood whether the owner has the animal insured, and if not, will they be responsible until your own cover commences. In a lot of cases the new owner is given a certain time span to get the animal insured, and up to that agreed time the original owner will cover the animal. It is very important that it is clear when ownership changes hands particularly when animal is in transit.
- Pregnancy certificate. As long as an animal is over two months pregnant, a veterinarian will guarantee that the animal is pregnant at the time of the test. Pregnancy is verified by an ultrasound test and some vets will supply a photograph of the foetus.
- The time comes when the price and payment have to be discussed. These will vary depending on the number of animals you are purchasing, whether they are to be agisted on the owner's property, and if the animal is to give birth and be remated before you take delivery of your new animals. When agreement is reached make certain that all conditions are written down.
- If you are leaving your new purchase on the seller's property, find out the costs of agistment and also the cost of agisting any new cria that may be born and any vet fees that may be required.

- If your new female is to give birth on the breeder's property, make sure you agree to a mating fee, and see if you can select your next sire using the same methods as mentioned earlier, such as looking at progeny of the sires available. Another alternative is to wait for your new cria to be born, and if its appearance and quality are what you are looking for, use the same sire again.
- If you buy a pregnant llama and she either aborts or gives birth to a still born, what happens then? There are no set standards, but it is important that you understand what guarantees the seller will give in this regard, and again, have it written down.
- You buy a pregnant llama (guaranteed), she gives birth to a live cria and then for some reason or other she can't get pregnant again, what happens then? Although this is very rare occurrence it can happen, and here again there are no set standards, so make sure both you and the seller agree in writing what will happen in this situation.
- If you are purchasing young males as future studs, or immature breeding females, consider whether you should require a fertility guarantee. Here again, guarantees can vary between breeders, so it is important for both parties to be absolutely clear what is involved in the guarantee. In some instances, a guarantee may be time bound.

## ADDITIONAL INFORMATION

To make contacts quickly there is no better way than to join the Llama Association of Australasia. With membership you receive a copy of our magazine Llama Lines which covers all aspects related to llamas. And of course, membership at the Branch level provides the opportunity to attend/arrange events and information sessions as well as networking opportunities.

There are many and varied information sources. These are just a few examples:

- Published reference books with the following most recommended:
  - *Medicine and Surgery of South American Camelids* Murray E. Fowler (DVM) – including nutrition, diseases, reproduction, health care and surgical procedures (online also)
  - *Caring for Llamas and Alpacas* Clare Hoffman (DVM), Ingrid Asmus – including all aspects of llama health and management. A practical guide for the beginner
  - *Llama Handling and Training: The TTEAM Approach* Marty McGee – a comprehensive text on all aspects of handling and training llamas using the very successful Tellington Touch Every Animal Method
  - *Storey's Guide to Raising Llamas* Gail Birutta.
- Internet – many of the large breeders in the USA have internet sites with a wealth of information.
- Social media – search for llama Facebook sites and join up to keep up to date with overseas and local activities and ability to research particular subjects and ask questions of a wide audience. Word of caution - ring your vet if you have a sick or injured animal.
- Publications - a number of llama associations in the USA and UK are now making their regular publications free to download.