



BREEDING AN ALPACA INDUSTRY

Part 1

by the Breed Development
Sub-Committee



Inspired by the excellent presentations given at this year's Conference, the Breed Development Sub-Committee has decided to invest some time in writing a series of articles covering the "art of breeding" which are to aid all alpaca owners to obtain a fuller understanding of the options available when breeding their alpacas.

Over the course of this magazine and the next four, the Breed Development Sub-Committee will attempt to cover topics that will help you to breed your "ideal" alpaca. The series of articles will include;

- Setting goals and putting measurable indices on the goals.
- Basic genetics (How traits are related to genes and how they get passed on, or not! Using genetics, pedigree and progeny to predict outcomes in the type of cria produced.)
- Selection of animals (Hands on assessment techniques, navigating pedigrees and progeny review)
- Record keeping (What to measure. Establishing baseline information and measuring improvements.)
- Types of breeding programmes (Like to Like, Filling the Gaps, Line-breeding, and Outcrossing)

Breeding alpaca tends to involve very personal views and ideas. Different breeders have different opinions as to what makes up the "ideal" alpaca and how to breed for it. These differences help to generate variety, which leads to improvement within our industry, but whatever your ideal alpaca let's hope that it broadly conforms with the industry ideal, and all breeding choices should be informed. The Breed Development Sub-Committee does not in any way want to specify which traits are important to a breeder, or to dictate any breeding objectives but rather provide information to assist in breeding decisions.

Everybody wants a paddock full of robust, healthy alpaca that reproduce easily and consistently, but we should always be thinking about the ultimate aim of our breeding programmes, whether it be for fibre or pets. Breeding goals need to be set from the first day we purchase animals. A definite breeding goal allows us to choose between individual alpacas and between the myriad of mating opportunities that are available and help us to achieve our herd of ideal alpaca.

SETTING GOALS:

Ask yourself:

"Why I am in the Alpaca Industry and what am I breeding Alpaca for?"

Before you decide on a breeding plan you should know what the final type of alpaca you want to produce is, and what you want to do with it. Whether it is for the pet market, stud stock, the show ring, fleece production or animal sales you need to know what you are aiming for.

When setting goals it is worthwhile taking the time to fully acquaint yourself with the breed standards as laid down by the industry. New Zealand's breed standards are aligned with the Australian breed standards and the easiest place to find a copy is the AAA website.

In the standards there is a general overview of Huacaya and Suri followed by specific characteristics regarding conformation and fleece and some faults to watch out for. The following is a brief summary of the breed standards:

HUACAYA AND SURI CONFORMATION:

The alpaca is a tall, graceful animal with a smoothly blended body and upright stance. It carries its head high. It is strong boned and vigorous. It has a good conformation with all parts in correct proportion and when true to type has the characteristics described by the standards. The approximate proportions of an alpaca should be a third legs, a third body and a third head and neck. The breed standards cover in depth the head, neck, forequarters, body, hindquarters, legs, height and weight, movement, testicles and udder, as well as disqualifying faults.

Disqualifying faults are:

- Polydactylism (More than two toes on one foot)
- Syndactylism (Fusion of the two toes of the same foot)
- Fused ears (Short stubby ears or fused at the tips)
- Banana shaped ears
- Tail absent or abnormally short or bent
- Fewer than two testes (males)
- Jaw not properly aligned
- Jaw excessively overshot
- Jaw excessively undershot



If an alpaca displays disqualifying faults it should not be registered on the alpaca register. There are many other non-disqualifying faults in the breed standards that are also very important to be aware of when selecting alpaca.



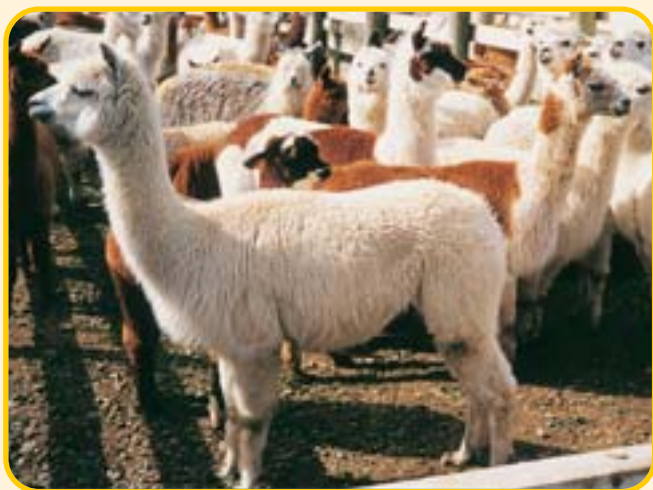
Improved Dam and Cria

HUACAYA FLEECE:

Huacaya are distinguishable from suris in that they carry sheep-like fleece, which stands at right angles to the body. The fleece should exhibit a strong wave or crimp across each fibre and have strong staple definition. The alpaca should be well covered with a rounded appearance. Coverage should extend down the legs and up to a bonnet on the head with a clean muzzle and ears.

The most important characteristics of huacaya fleece are:

- Density
- Fineness and handle
- Character
- Lack of medullation
- Lustre



Unimproved Dam

SURI FLEECE:

The suri carries a silky, soft handling fleece that moves freely, yet hugs the body giving the animal a flat-sided appearance. The fleece hangs from a centre part – neck through to tail – with well-defined locks forming close to the skin and twisting uniformly to the ends. The overall effect is similar to the drape of a curtain of silk tassels.

The primary characteristics which distinguish a suri are its lock structure, high lustre, silky handle and long staple length. The ideal suri exhibits little medullation, resulting in uniformity throughout the fleece.

The most important characteristics of a suri fleece are:

- Lustre and lock structure
- Fineness and handle
- Density
- Lock length
- Lack of medullation

When setting goals consider all the options. As an example, lets think just about fibre production. Currently there are markets for all types of alpaca fibre and demand is still outweighing supply. In this example looking at existing markets allows us to make some monetary decisions about our breeding goals. ‘The more fibre per alpaca - the more money per alpaca, therefore, density (shear weight) becomes a valuable trait to breed for, but the real challenge is to look into the future and see where the markets will be and breed towards them.

Keeping in mind the many wonderful things about owning alpaca, they are essentially a high value investment and your breeding programme should be viewed as a business. Your capital, be it purchasing of new stock or stud fees, should be carefully invested to help you achieve your goals and generate a return.

We all know what is possible with a well planned alpaca mating; just compare an older Chilean (unimproved) alpaca, micron 30+ shearing 1.5 kg with the Grand Champion alpaca at your local show, micron in the low 20’s and shearing 5 kg. They could well be related over the generations. Achieving this degree of improvement is not a quick process but instead takes time and planning over several generations. Remember it is important to constantly reassess your herd as a measurement of your breeding success.

So far in the NZ industry, improvement has been rapid, as many alpaca have been bought in from overseas. Our industry is now reaching the stage where “buying in” genetic gain is becoming a far less effective improvement method and further advancement will have to be made by reverting to the time honoured “in herd” improvement programmes.

All breeding programmes are a progression toward goals and should not be just a hit and miss affair, so set your goals and breed towards them.

At present the long term goal of the Alpaca Association New Zealand is to produce a sustainable alpaca industry and this requires us as breeders to take a good look at our individual objectives. If the New Zealand alpaca fibre industry is to grow and become successful, the processors will need a supply of consistent quality fibre and as breeders it is our challenge to breed alpacas that can meet that demand.

There are also other products to consider, particularly meat and hides, which will aid the alpaca industry to become a sustainable one and may require different breeding goals.

It is the Breed Development Sub-Committees goal to help all the members of AANZ to get the best out of their alpacas and to minimise breeding disappointments.

To complement this series of articles we are preparing a section on Breed Development to be included in the Members Handbook and we have launched the “Sire Index”. This is a database detailing working sires nationwide and can be accessed from the AANZ Web Page through the members section. We are confident that more members will submit animals as time goes on and that it will become a useful tool in initial sire selections.

The Breed Development Sub Committee would welcome input from AANZ members in the establishment of tools and databases that allow breeders to benchmark their own herd development against industry norms, and maximise their progress towards their own breeding goal of the ideal alpaca.

If you wish to comment on this article or put forward any ideas to the Breed Development Sub-Committee, please contact Murray Basingthwaight - Phone: (03) 4436550 or email: cate.murray@actrix.gen.nz

