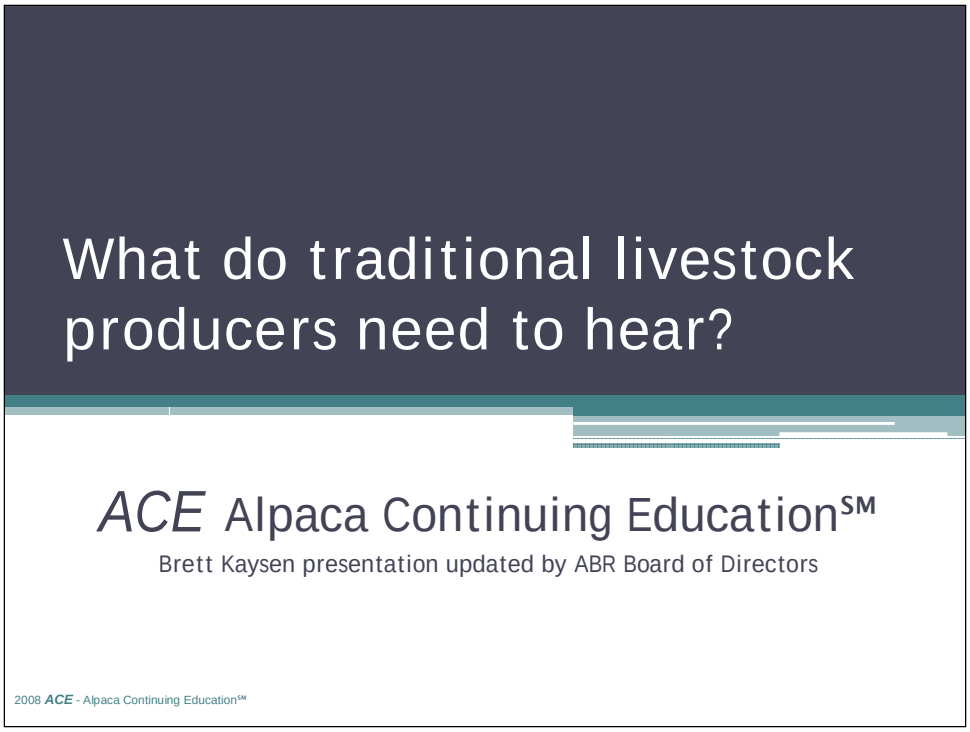
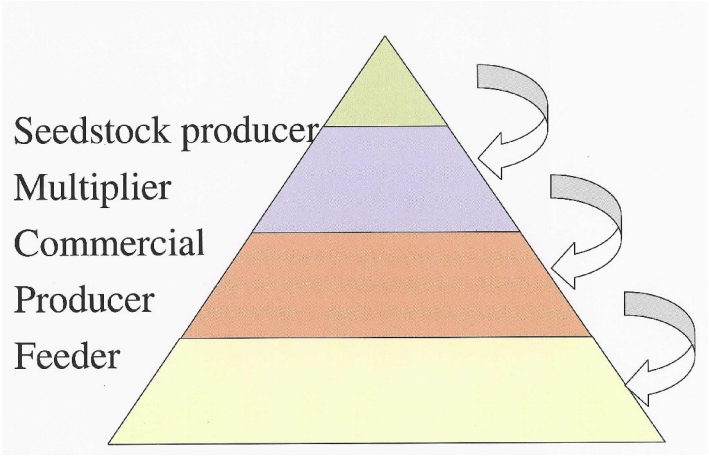


This presentation was given by Brett Kaysen as a way to introduce alpaca breeders into communicating and building relationships with other livestock breeders. It was also meant to further educate us as to what it means to be a livestock breeder and what we must know about our industry and our own businesses. We hope this will provide some insight for you.

The Livestock Model

The traditional livestock model



Livestock Model Defined

The Livestock Model is defined here as seen in the beef industry. This is important in understanding other livestock industries and can be applied to the alpaca industry (breeding/fiber focus).

BEEF INDUSTRY SEGMENTS

The term beef industry implies that the beef production system is a unified operation subject to an overall management program. However, the beef industry is actually made up of several different segments that are linked together through beef animals and products, yet the segments operate somewhat independently from each other. Each segment has different economic parameters and management problems and markets different products. In some cases, segments are in direct competition with one another. In some respects, the various beef industry segments can be considered separate industries because of their distinctly different characteristics.

When applied to the alpaca industry you can think of different industry segments as alpaca (breeding/sales), fiber and end products and fiber herds.

Livestock Model Defined (continued)

The Seedstock Segment
Seedstock breeders, sometimes referred to as purebred breeders or registered breeders, are specialized cow-calf producers. Seedstock breeders are predominantly responsible for identification and propagation of genetics that contribute to the profitability of the industry. Seedstock breeders sell genetic information, breeding animals, semen, and embryos to other breeders and commercial cow-calf producers. Their function is one of service – to provide the genetics that can be economically utilized by the beef industry. The breeders sell breeding animals primarily to commercial cow-calf producers within a 100 to 150 mile radius of the breeders' operations. Choice of breed – whether one or a combination of breeds – is important in developing a production and marketing program that can best serve the commercial producers in any given area.

In the beef industry, the Seedstock Breeders sell to Commercial Producers and Multipliers. You will see mainly Seedstock breeders at the stock show but Multipliers and Commercial Producers will be there looking to purchase breed stock or semen from the Seedstock breeders.

From an alpaca perspective, the majority of current alpaca breeders could be consider Seedstock breeders.

Livestock Model Defined (Continued)

The Commercial Cow-Calf Segment

Commercial cow-calf producers maintain cowherds and raise their calves from birth to weaning. Under ideal conditions, each cow is expected to produce one calf each year. The calves are the primary source of revenue for the producers as well as the source of heifers to replace cows that die or are culled. Changes in cow numbers over the past 35 years reflect an increase in beef cows and a decrease in dairy cows. Total milk production from dairy cows has remained at about the same level due to a marked increase in productivity for each dairy cow.

Herd sizes of 300 cows or more are considered to be an economic unit, so there are numerous small beef cow operations that are supplements with outside income. Increase in cow herd size does not always imply an increased efficiency of production. However, several studies demonstrate that there is a greater return per head as cow herds increase toward 1,000 head. The concentration of 50% of the beef cow inventory in small herds that account for nearly 90% of total enterprises with the remaining half of the inventory controlled by less than 15% of the cow-calf herds creates challenges in the industry. These challenges include the process of communicating technical and marketing information to managers of small versus large herds, developing supply assurance systems that include both small and large herds and finding ways for managers of small-sized herds to overcome the cost advantages held by large enterprises. Although there are a few intensively managed cow-calf operations where cows remain in confinement year-round, most are extensively managed operations where cows are maintained on grazed and harvested forage throughout the entire year. Many cow-calf operations are extensively managed in high mountain valleys, plains, and desert areas where 30 – 100 acres are required per cow, with some supplemental feeds provided. Some cows are maintained on more intensively grazed areas where 1-5 acres per cow are utilized for 5-10 months during the year.

There are many similarities to the alpaca industry in the size of beef operations. And the beef industry also faces the challenges that we see in the alpaca industry today.

Livestock Model Defined (continued)

The Feeder Segment

For the beef industry this segment is feedlots. Feedlots are confinement feeding operations where cattle are fed primarily finishing (high energy) rations prior to harvest. Most feedlot operations feed relatively high grain rations for 90-150 days for economically efficient gains and to improve the palatability of the retail product. Some operations background cattle by feeding them primarily roughage rations prior to the finishing phase.

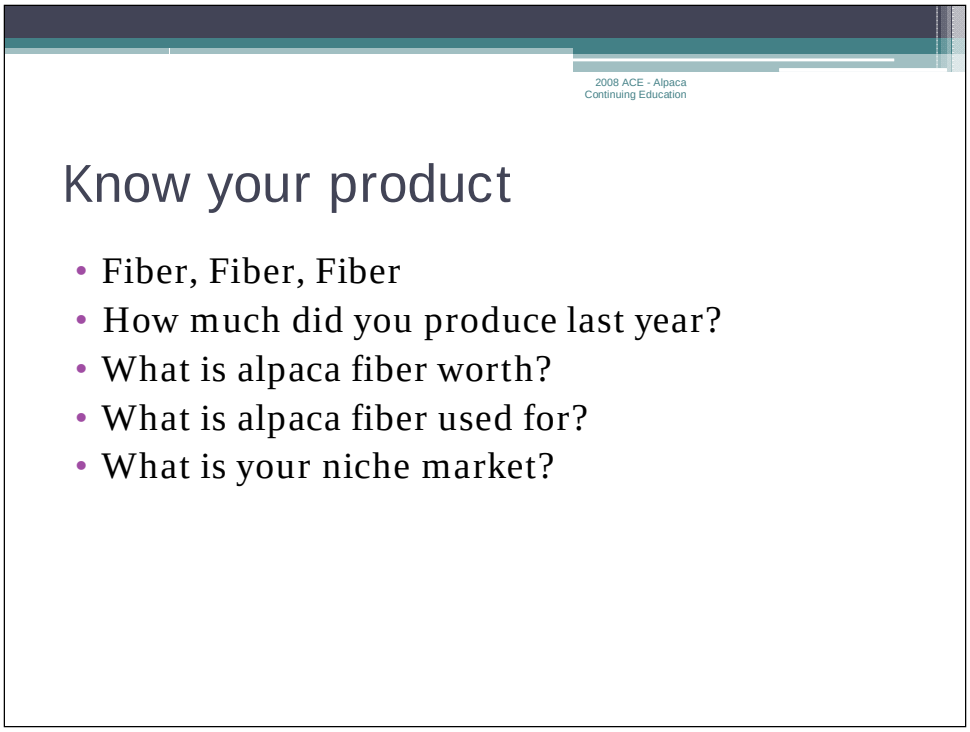
Alpaca Spin – the Fiber Segment

The challenges we face.

- Recognition as a livestock industry not a pet or exotic.
- 85% of our members have never raised livestock prior to alpacas – are you ready for the challenge?
- Are Alpacas a sustainable industry?
  Sustainable industry or tax shelter investment.

This is an answer each of us must think about and understand. Do you believe we are a sustainable industry?

Alpacas were first imported into the US in 1983 and ARI closed the registry to imports in 1998.



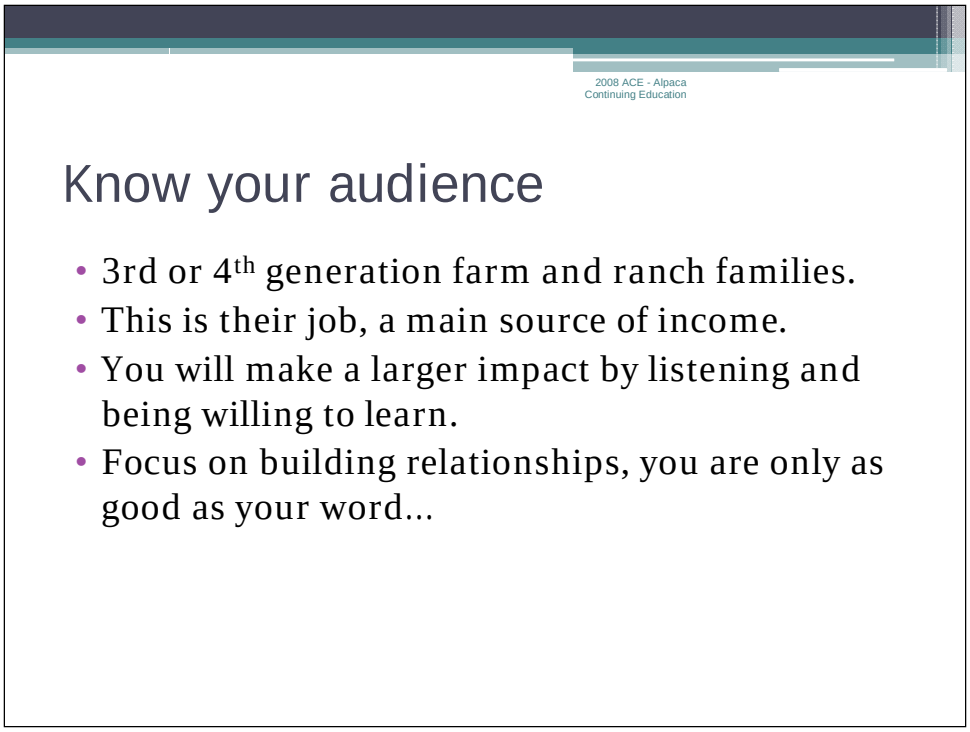
Livestock people, regardless of the livestock, are going to ask different questions than the typical questions we get from the public. Can you answer these questions? If yes, that's great. If not, you need to do some research to be prepared to provide some responses.

How much did you produce last year? You don't have to weigh everything – take the number of animals you shear a year and multiply it by an average weight, let's say 6lbs for Huacaya and 8 lbs for Suri. You can adjust these values based on your herd but it gives you an annualized figure to share.

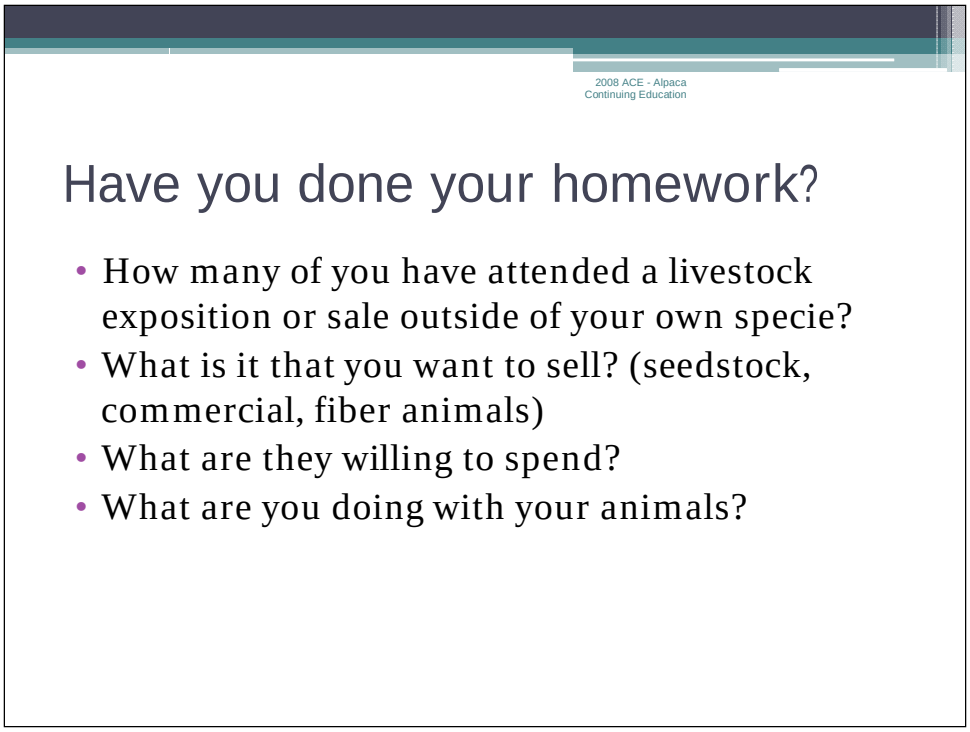
What is your fiber worth? This depends on what stage its in – raw, rovings, yarn, end product. Raw fiber can sell for $1.25 to $4.50 per ounce depending on many factors – age of fiber (age of alpaca when sheared), micron, handle, etc. Yarn will sell for average of $18-$22 per 350 yards. Again, these numbers can differ based on your own experience but if you have all your fiber in the basement – this will give you a stepping point to discuss with prospects.

What is fiber used for? Textiles, clothing, socks, home products - blankets, pillows, duvets, upholstery, flooring, rugs, etc.

Your niche market – only you can answer that! But the basic question – what do you do with your alapcas? What is your business plan? Do you care about particular genetics, breed, fiber quality, etc.

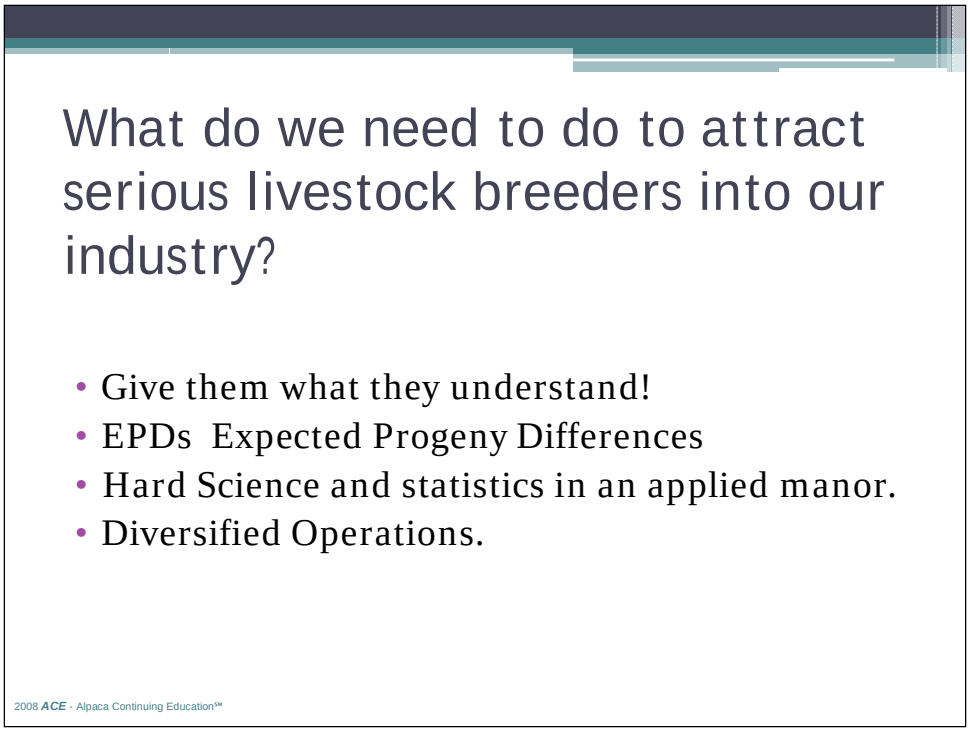


Remember a key marketing point – don't do all the talking! Working with livestock people means building on a relationship. They aren't interested in marketing hypes and pretty pictures. This is their life, not just a lifestyle. Take the time to listen, learn and the payback will come.



While you're at the Stock Show, take some time to go to the cattle or sheep shows. Visit places where you can ask questions or listen in to conversations. Spend some time in the Stock Yards where the majority of business takes place. Yes, this will take you away from your stalls but will be worth the time spent. Or come back after the alpaca weekend and spend time chatting with livestock people – asking them questions about their animals and their business.

A second point – know your own business and be able to communicate that in as few words as possible. Those of us in the corporate world know it as the "elevator speech". You can always expand later, know what you do!



Do you understand about EPDs? Livestock people know it very well. ARI has great information on their website about EPDs and what statistics they're currently gathering for the industry.

Can you speak about histograms and what all the numbers mean? It's not just about micron. Here's some facts to start with (from Yocom-McColl website):

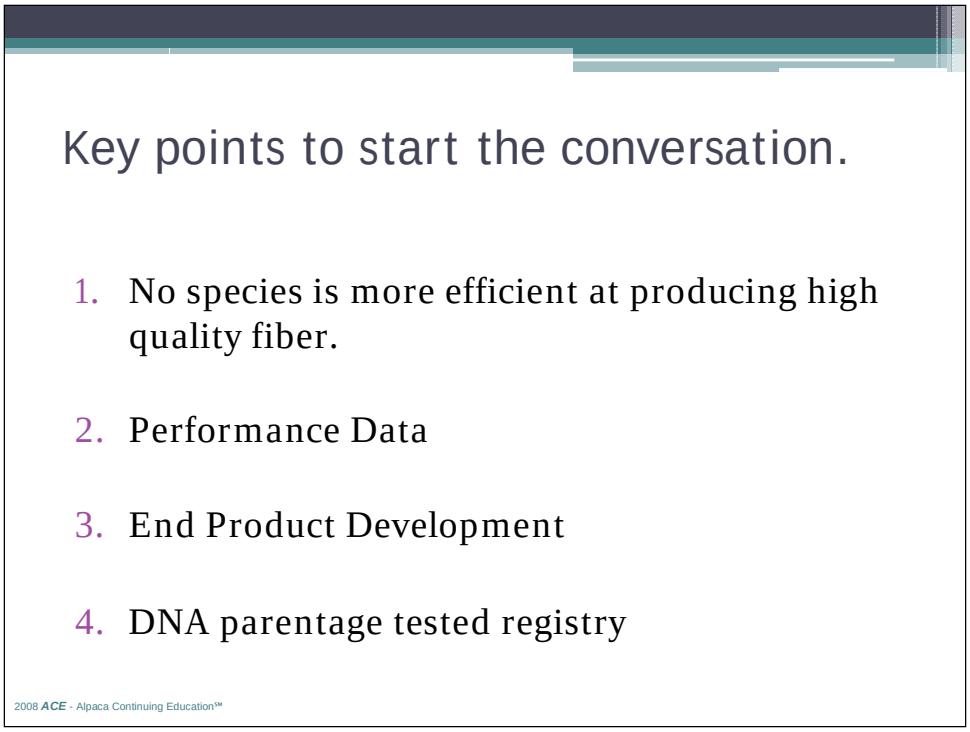
Micron: Fiber diameter or Average Fiber Diameter (AFD)

Standard Deviation: represents an average to individual deviations (plus or minus micron values) from the mean or Average Fiber Diameter (AFD). The smaller the Standard Deviation, the more uniform the population of fibers measured. It is the most stable of the variability measures.

Coefficient of Variation (CV): this is the Standard Deviation divided by the Micron multiplied by 100 and reported as a percentage. The CV is used in the statistical analysis of different populations of fiber (different animals).

Percentage of Fiber greater than 30 microns: In commercial application and breed selection, this data is of interest because it shows the coarse edge that determines the final use of the fiber. It has a relationship to the strength of the yarn processed from the raw fiber and influences "prickle" factor, the scratchy quality associated with coarser fibers.

Livestock people want to hear about diversification. Consider what it would take for them to have a contemporary herd of 30-50 alpacas. What does it cost to feed, manage and shear these animals? What will their payback be?



1. Alpacas are efficient in foraging, land use, and herd management. Very easy to care for to produce that high quality fiber.
2. Performance data is available today with histograms, birth weights, weaning weights, fleece weights, etc. EPDs are currently being developed through ARI.
3. Can you speak to some of the End Product Development? What do you do with your fiber?
4. This is a high selling point for alpacas – ARI and DNA registry.

Fancy marketing will not cut it with traditional livestock producers.

They will demand facts and data!

We may be at the ground floor of developing true end product development but this provides endless opportunities for success. Can you provide some details into this?

Research and Future Technologies

- Expected Progeny Differences (EPD's)
- Artificial Insemination
- Embryo Transfer
- DNA Profiling

If you don't have time to research these topics, at least make yourselves familiar with their definitions.

EPD's: provide a prediction of future progeny performance of one individual compared to another individual within a breed for a specific trait. The EPDs are reported in plus or minus values in the units of measurement for the trait. For example, birth, weaning and yearling weight EPDs are reported in pounds. The EPD values may be used to compare only those animals within a breed. For example, the EPD values for a Hereford bull may not be compared against the EPDs for an Angus or Limousin bull.

Artificial Insemination: a process by which sperm are collected from the male, processed, stored and artificially introduced into the female reproductive tract for the purpose of conception.

Embryo Transfer: Embryo transfer (ET) is the process by which embryos are harvested from valuable female alpacas or llamas and transferred into less valuable females for incubation and nurturing. Each donor female is mated naturally by a male, which (a) induces her to release an egg into the oviduct and (b) deposits sperm in the female reproductive tract. The union of the egg and sperm (fertilization) in the oviduct results in the development of an embryo, which can be harvested from the uterus about a week after mating. Donor females are lightly sedated and flushed non-surgically. Embryos are transferred into reproductively-sound recipient females of lesser genetic merit.

DNA profiling: plays a crucial role in the livestock industry worldwide. Since the discovery of the technique in the early 1980s, it has proved invaluable in parentage determination. Development of the technology and the adoption of modern approaches have expanded the fields of application. The modern methodology using microsatellites is highly accurate reproducible and automated.

A large number of applications for DNA profiling exists in the livestock industry:

- Artificial insemination (AI) and multi - sire mating systems are widespread practices where DNA profiling can establish the sire.
- Embryo transfer is becoming more and more popular and here, too, the technology plays an important role in parentage determination.
- DNA profiling can also be used as a diagnostic tool and breeding lines can be selected for certain traits.