

**To: Alpaca Owners**  
**From: Eric Hoffman**  
**Re: Alpaca Herd Evaluation Findings**  
**March 18, 2011**

As you may already know, a large farm in Snohomish, Washington has been taken over by a Seattle bank. As part of this foreclosure, 680 animals must be liquidated, among them is an alpaca herd of approximately 270 animals. It will be very challenging to disperse this many alpacas at one time especially in the current economy and alpaca market. Nevertheless, the decision to do so has been made by bankers who are saddled with a huge expense for the care and feeding of the animals they now own.

I have become deeply concerned about the fate of all these animals. I have no vested interest in any of them. In January 2011, Boyko Inc., in preparation for the upcoming auction, hired me to evaluate the alpaca herd. An overview of my findings are offered here to provide you with objective information about these alpacas. I hope you find it helpful. I think recent herd photos (taken in the rain) are misleading. There are some animals here that would be an asset to any breeding program. I have volunteered to be available to meet with buyers March 25, 26 & 27. I will have each alpaca's evaluation, its histogram (if one was taken), and a microchip reader to make sure we're looking at the right animal.

**Herd screening:** On January 24 and 25, 2011 I evaluated 232 alpacas using the objective evaluation standards that were used to screen all the imported alpacas registered into ARI and CLAA before closure. (See explanation of evaluation criteria below.) I've used this criteria on screening teams to evaluate over 15,000 alpacas around the world. I was hired to, "Find out what is there so we can tell people." We took fiber samples and have Laserscan histograms done by Yocom McColl Laboratories for 201 of the alpacas. There are an additional 40 or so alpacas in the herd that were not evaluated. My comments are directed to the animals that were.

**Overall summary:** This alpaca herd's foundation stock dates back to the 1980s and 1990s. Outstanding huacayas and suris were purchased from among the best stock available. Today the herd is generally, healthy and structurally sound. There is a spectrum of fleece quality with a large number of dense huacayas.

**Herd Stats:** 232 alpacas

**162 huacayas** - males 31, females 133

Colors: Whites 48, Browns 37, Greys 36, Fawns 20, Blacks 14, Piebalds 7

**64 suris** - males 22, females 42

Colors: Whites 23, Browns 11, Fawns 16, Blacks 9, Greys 3, Piebalds 2

**Determining Age:** No records were available during my visit. Based on dentition and ear tags the age range is probably 5 to 17 years. All animals appeared to have their permanent incisors with fully-erupted canine teeth. There were about a dozen animals with ear tags identifying them as 1998 imports.

**Body Score:** The majority of these alpacas have optimum body scores. Body scores are the most convenient way to assess herd health. These alpacas live in spacious lush pastures and are fed orchard grass hay. Body scores of 2, 3 & 4 are considered within the norm. Herd scores:

Body Score Scale:	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
	<b>Emaciated</b>	<b>Thin</b>	<b>Optimum</b>	<b>Overweight</b>	<b>Obese</b>
Herd distribution:	3	42	114	56	4

**Dentition:** The herd’s incisor alignment is exceptional, especially for an older herd. In many herds alignment problems are prevalent. In this herd only four animals had significant overbites or under bites exceeding 4 mm. The average animal in this herd does not require incisor trimming. Six alpacas had overt molar tooth abscesses.

**Ears:** No alpaca had llama-like banana ears. All ears were of the alpaca phenotype. One alpaca had fused ears, another gopher ears. (both considered severe defects)

**Eyes:** Two veterinarians examined the herd’s eyes and found three cataracts. Otherwise there were no reported eye problems.

**Airflow:** None of the animals had an obstructed airflow from either nostril. There can be different reasons for obstructed airflow, including a partial choanal atresia – that is why checking airflow was made a part of the screening evaluation.

**Spinal System:** Scoliosis (curvature in spine), Lordosis (sway back), and Kyphosis (humpback) were not found. However, 12 alpacas had crooked or twisted tails involving vertebrae. The crooked tailed animals were flagged on their evaluation forms. There are also “J” hooks in the last centimeter of some tails, below the last vertebrae, which doesn’t involve the spinal system. Still, they are mentioned on the evaluation forms.

**Tail Set:** All alpacas had an alpaca tail set. A rounded rump, with a lower tail set than a llama, is a species indicator for alpacas.

**Locomotion:** The two most common locomotion defects i.e., crossing the midline and winging were not observed. Two animals had rear leg lameness.

**Front legs, front view:** only five animals had moderate carpus valgus 6-14 degrees, more had mild forms of less than 5 degrees. The incidence of this defect is less frequent than in most herds.

**Front legs, side view:** no incidences of buck-kneed, cocked-ankle, or calf-kneed.

**Back legs, side view:** Two animals were recorded as having moderate sickle-hocking. (130 degrees)

**Back legs, back view:** Three incidences of moderate to severe cow-hock, 6-10 degrees, 11- 15 degrees. Some mild cow-hocking as well, but not many.

**Fetlocks or Pastern:** one alpaca had two fully collapsed pasterns, four had weak or spongy pasterns, all are recorded.

**Patellas:** (knee cap, rear legs): Two animals had one easy to luxate patella (when moved out of place the leg becomes unsound), which is considered a serious defect.

**Toes:** No fused toes, no extra toes, one alpaca with large growth on toe. Most toenails were trimmed during screening.

**Teats:** two females with extra teats – noted on evaluation forms.

**Vulva:** 5 vulvas under 1 cm. considered an indicator of an underdeveloped reproductive tract.

**Testicles:** Five males with one undersized testicle (smaller than 3 cm).

**Cardiovascular:** No veterinarian was available to listen to hearts during screening. The incidence of finding a heart problem in an adult alpaca is less than 1 in 500 animals.

**Alpaca phenotype and muzzle length:** Muzzle shape is one of six determinants for identifying a South American camelid as an alpaca. Vicuna, the alpaca progenitor, has a short triangular muzzle as do many alpacas. In the screened group about 25 animals have intermediate muzzles, which are entirely functional. An intermediate is not a llama muzzle. One animal was recorded as having a llama muzzle. All animals possessed a preponderance of alpaca phenotypic criteria.

## FIBER RESULTS

**Age, Diet, and Coarsening:** This is an older herd, so many animals have coarsened significantly as part of the ageing process. Some animals are overweight, which correlates highly with coarsening. Surprisingly, many animals still had micron ranges in the 20s.

**Huacaya fiber:** All the animals appeared to have not been shorn for a year or more. There are many animals with good quality fleeces. There is an impressive group of dense white animals that show overall consistency in their fleeces and an estimated 8-10 lb shearing weight. There is smaller group of brown animals with similar consistency and many individuals in other colors with worthwhile fleeces. Good density levels were fairly common in the herd.

**Density:**

	<b>Slight</b>	<b>Average</b>	<b>Dense</b>	<b>Super Dense</b>
Alpacas in herd:	<b>6</b>	<b>78</b>	<b>75</b>	<b>1</b>

**Microns:** 58 huacayas are between 20.2 and 29 microns. 83 huacayas are between 20.2 and 31 microns. Most alpacas are 30 microns or more when they are five years old.

**Suri fiber:** 65 suris were evaluated. Histograms were obtained for most of them. Some of them are still below 30 microns. The lowest micron count is a male at 22.4 um. 47 of the fleeces were designated as having luster. There were three animals with intermediate fleeces, (characteristics of both huacaya and suri).

## **OTHER IMPORTANT HERD INFORMATION:**

**Herd Records:** There are no health, shearing or breeding records for these alpacas.

### **Registration:**

#### **Identifying registered alpacas:**

At the time of this writing I was told approximately 100 ARI certificates had been located. Efforts are underway to match certificates to specific animals.

#### **Registering unregistered alpacas:**

More than 150 alpacas are not registered but they come from lineages that are registered. It appears the last registrations occurred in 2003. There are efforts underway to locate lost registration certificates.

*The Canadian Llama and Alpaca Association, (CLAA) the International Lama Registry (ILR) and the Alpaca Registry Inc. (ARI)* are aware of the circumstances of this herd and have reacted in different ways:

The CLAA will register offspring of unregistered alpacas when the unregistered alpaca is bred to an alpaca in their registry. <http://www.claacanada.com>.

The ILR is primarily a llama registry but ran the Alpaca Registry Inc., from 1989 to 2003. The ILR has not registered alpacas for seven years. It is now back in the business of registering alpacas. <http://www.lamaregistry.com>

ARI has the largest registered alpaca gene pool in the world. The animals in this herd that are registered are in this registry. ARI officials hope the DNA bank leads to future registrations from the herd. (see below) <http://www.alpacaregistry.com>

#### **Herd DNA Bank Established at UC Davis:**

When it became clear that a satisfactory agreement between the herd dispersal companies and ARI wasn't going to occur before the herd was dispersed on March 26, and the possibility for DNA collection lost forever, Michelle Ing, DVM and I contacted Cecilia Penedo, PhD at the UC Davis Veterinary Genetics Laboratory to try to create a DNA Bank in the hope that unregistered alpacas in this herd can someday be registered. She said "yes". Dr. Penedo is the scientist who created the first blood identity systems for camelids and ARI. She is an expert on camelid DNA lineage verification. Boyko Inc. assisted in this effort by making blood samples they had taken for other herd health tests available to UCD, and by sending copies of all the certificates in their possession to UCD, adding valuable case numbers to the collected data. So now a DNA Bank, of past and present animals, is safely at UC Davis where progeny testing can be ordered for a \$50 per animal fee. <http://www.vgl.ucdavis.edu>

**No guarantees:** It is important to understand there are no guarantees that lineages can be established for every unregistered animal, and there may be political obstacles to overcome. The alpaca community is in uncharted waters in facing the reality of these unregistered animals.

**Conclusion:** The fate of more than 270 alpacas and 240 llamas will be decided the weekend of March 26 & 27<sup>th</sup> when the auctions are held. The timing is terrible, the economy depressed and

the large number of animals could inundate an already weakened alpaca markets. However there is probably never a good time to have a farm go into foreclosure. And, like it or not the auction is going to happen.

Some people believe that surplus alpacas should be sent to slaughter. But, a large portion of this herd are not animals that should be culled from the already closed gene pools in the USA and Canada. Many of the alpacas in this herd have excellent genetics. As a herd they score very well in terms of structural soundness. A large number of older alpacas still have worthwhile fleeces. The animals with structural flaws would be good fiber producers and/or pets. It seems to me the humane thing to do is to find homes for as many animals as possible.

### **Background on the Screening Evaluation Criteria used:**

Screening is an objective method of evaluation designed at UC Davis and Oregon State University. It was first applied on inbound alpacas from South America in the 1990s. It has been employed by every registry in the world and is still in use in some countries. The evaluation relies heavily on feeling (palpating) and measuring body parts, assessing their functionality and fiber testing. There is no mystery to findings. The animal's structural soundness and fiber quality is recorded in measurable terms that can be revisited to check accuracy.

A summary page like those completed for each alpaca, can be seen at the end of this email. Additional information on alpaca evaluation can be found in Chapters 3 and 27 of *The Complete Alpaca Book* or in "*The Alpaca Evaluation Handbook: A Guide for Owners and Breeders.*"

**For additional information Contact:** Josh Boyko: [joshb@boykoinc.com](mailto:joshb@boykoinc.com), about animal identification, registration, and sale rules. You can contact me, Eric Hoffman with questions about individual alpacas [eric@bonnydoonalpacas.org](mailto:eric@bonnydoonalpacas.org) .