

*“Naming your goals is the first step to achieving them. So we here at One Earth Farm have christened this ‘burgeoning breed’ of ours ‘Napa.’ The name is borrowed from the sacred white herds that were once reserved for the Incan ruler himself. These herds represented the pinnacle of breeding excellence and purity, and by decree, only the Inca himself could possess a pure white llama. Such decrees were based on political and religious beliefs, but it was exactly this sort of archaic system that resulted in the gathering of superior animals into one location to form ‘nucleus herds’ that consequently gave rise to the pure breeds of llama upon which the Incan empire was built. The Napa name therefore embodies both our breed standard and the nucleus herd we are slowly building here at One Earth Farm.”*

*- Taken from our Napa breed standard*

# The Napa - Understanding the Herd as a Single Unit

*By Dan Powell*



**T**he llama herd at One Earth Farm is like no other herd in North America. Indeed, it may be the only such herd of its kind in the entire world. When we stepped onto the llama scene a mere decade ago, we discovered a genome under siege by rampant outcrossing and negative assortative mating - never mind that we had forayed into an industry that was founded upon speculation and unsound breeding practices. What makes our herd unique is that from the onset we developed a breed standard. We had a singular vision - ignoring both last year's and next year's trend. We sought to create an animal that embodied all the tractability, independence, and personality of a llama, while possessing all the end-product benefits and marketing potential of the alpaca. We envisioned a herd that would grow to become the first of its kind - the Napa.

As a boy I subscribed to National Wildlife magazine and, somewhere in my later teens, I received an issue with a photo of Accoyo-type alpacas on the cover - or at least this is how the memory has persisted. I looked upon these animals as if they were the holy grail of livestock; as if my life's purpose had suddenly been found. Prior to this, many llama photos had indeed caught my eye, but none bore remembering. All llama herds I had seen had been conglomerates. They were mere hodgepodes of spotted, tall, short, brown, woolly, or light-fleeced animals. The sort of herd that promised something for everyone; for everyone of course except me.

What I had not gleaned from that fateful National Wildlife magazine cover photo was that alpacas were actually not the tall statuesque animals that the camera angle had suggested. In addition, what I did not realize then was that because alpacas were not beasts of burden, they had not undergone the

thousands of years of selection for tractability and composure that the llama had. Just the same my teenage brain had filled in the gaps, creating herds of seven foot tall, statuesque engaging alpacas – or perhaps it was uniform herds of robust single-fleeced llamas. I'll let you decide.



center was an old farm house so gray and weathered that were it not for the beds of brilliant flowers that reached out from its base in every direction it would have been invisible.

But it was the pastures



I grew up on a beef farm. My father had a mixed herd of cattle that weighed in heavily on their Hereford component, but nearly as numerous were the black, spotted and dilute Hereford crosses that, to my father's mind made, him a second-rate breeder. What he craved was a herd of purebred poled Herefords with gloriously white curly faces, brilliantly red hides, and thickly muscled bodies. He revered horns, appreciated a good milker, and worshipped the easily-managed bull; but what he did not heed was his dream. This dream was my inheritance.

As a child packed amongst siblings like sardines into the back seat of a bright blue Chevy Impala, I recall a particular farm that my father always passed after church. There was the Sunday service for my mother, then it was off to the Dairy Queen for us kids, and then there was the long drive that invariably led us past this one rundown old farm that was many miles out of town and in the opposite direction of our home. This farm always inspired my pedal-heavy father to slow down. Perfect green pastures spread out in all directions, barns and lean-tos much worse off than our own sat in the distance, and in the

filled with cattle - glorious red and white cookie-cutter Herefords, the likes of which I had never seen elsewhere - for which my father had come. I had always sensed that it was my father's utter bliss at the sight of that perfect and uniform herd - and not his urge to slow down for want of what he could not have - that lifted his foot from the pedal. I was the youngest

and was invariably stuck on the lap of one of my many disinterested and fidgeting older siblings and visiting cousins. But, as if my father had reached in and placed his own unattainable dream in my heart, I can still hear him saying, "That's one goddamn animal; one perfect animal times three hundred

or more...!" And then he'd sigh, and my mother would give him a furtive wink, and my siblings would raise their brows and smirk mockingly, and then he would silently return us all home.

The uniformity and utility bred into that herd of Hereford cattle became my Sunday service – supplanting the Church, supplanting my mother's expectations for me to become a priest, and supplanting the singsong merriment of my noisy siblings and my wholly uncivilized cousins. I was a happy kid; a kid with a coop full of chickens, three skittish kittens I had rescued from the woodpile, and a wounded barn owl to rehabilitate. And, like all Americans, I was a part of a dynamic family that was learning to 'think outside the box' if only because they were on the verge of outgrowing it. Even back then the stage was well set for my unorthodox take on llama breeding.

I entered the llama industry with both a prejudice and a dream. The prejudice was entirely my own; an inborn predilection for order and predictability, but the dream I shared with my father. He did not dream of llamas as I do, and he did not have the benefit of my education and training, but he did recognize that the herd was the single smallest unit upon which a breeder can make progress. He recognized that good breeders were great men of clear vision. He recognized that chasing trends and pursuing the 'fast buck' meant that he'd be chasing them forever. Where his heroes were McCarthy, Jesus, and that nameless breeder of Hereford cattle, mine became Charles Darwin, Elkhart Tolle, and Don Julio Berreda – all the same pieces, but quite a different puzzle.



In the early days within the llama industry I was hounded with opinions from well-established llama breeders that felt it necessary to guard me against my own naiveté. I was encouraged to produce an outcrossed herd that represented the full range of colors, fleeces, and body styles, just like everyone else in the industry was doing.

It was recommended that I allow ALSA judges to determine my selection parameters; that staying ahead of yesterday's 'trends' was somehow the key to success. At some point it was even stated that the llama genetic code was so unlike any other mammal, that it was impossible to create any semblance of order therein. I was dissuaded from my goals at every turn. I understood that decades of outcrossing and negative assortative mating had made a shambles of the North American llama genome, and, as such, breeders did not believe consistent breeding results could ever again be had.

What I did not appreciate in those early days was how difficult it would be to locate suitable animals for my program. Occasionally the phenotype



that I sought – a tall robust animal with an abundant pure-white single fleece and a mellow disposition – did, albeit rarely, present itself. I continued on my course;

scouring pedigrees, studying color and fiber genetics, and beefing-up on my understanding of conformation and movement – and once in a very great while purchasing an affordable animal with which I would just have to 'make do.' This is how I began.

This project has in large part been an experiment: a way to test my breeding mettle, a way to disprove all the naysayers I'd met along the way, a way to put right some of the wrongs this ancient and adaptable livestock species has endured since Gonzalo Pizarro set foot in the new world. Soon my exploration into fiber usage and fiber genetics brought about a deeper focus and a clearer path for this project.

Yes, I wanted to look out across my pastures and see the uniformity my

father had never achieved, but so too I wanted to impart true and lasting value to my herd. My understanding of fiber genetics made it necessary that I adapt our breed standard to include two seemingly polar fiber types – huacaya and suri. In the same vein, it was necessary to begin selection away from the traditional silky fleeced animals with which my herd was originally founded and begin the work of locating strong huacaya llama genetics with which I could infuse my herd. I was very

fortunate in this regard, and soon both my huacaya fleeced animals and my suri fleeced animals showed vast improvement in fiber density, hand, and architecture.

Now, only a decade later, the herd at One Earth Farm stands as proof positive that rapid genetic gains can be accomplished on a shoestring budget,



and in a surprisingly short amount of time, if proper selection and breeding practices are employed. Granted, my selection parameters are highly specific, and I have applied them to a population that is unduly heterozygous. In truth the rapid gain I have experienced is nothing more than the typical response of a grade population undergoing concerted directional selection.

My motives for this project are many. The first and foremost is to benefit the species *Lama glama* here in North America; to shift the American predilection away from breeding them as pets and show prospects, and begin the work of turning them into a bona fide livestock species. It is no secret that I would like for all the vague and varied 'barn cat' type breeding programs to



be replaced with sound breeding programs that embrace breed standards and further the development of animals like the Argentine, the mini, the suri, the ccara, the North American silky, and any other purebred llama that is distinctive and as easily distinguished from others as is the Angus cattle from the Hereford. Currently our herd merely represents the very tip of the iceberg in breed development, yet our breed standard is already a decade old. While at this stage much of the interest in our program has come from overseas, we hope that one day other breeders here in the US will join with us to continue our program into the years to come.

It is rare that a visitor to the farm does not remark at the sight of our llama herd. Non-llama folk are taken aback by the laidback nature and kissy-faced

dispositions of the animals. But rarely do they remark at the one thing that sets this llama herd apart from all other North American llama herds. Nonetheless, when a bona fide llama breeder steps into the barn to find twenty pure white huacaya and suri llamas laying under the fans on a balmy July afternoon, or is greeted at the gate

by a dozen seemingly indistinguishable white cria and weanlings, they invariably comment on that very thing.

I've waited as tried and true llama breeders struggled to find the words that expressed their astonishment when our herd galloped up and leaned over the fence, making clear for them this concept of 'the herd as the single unit' in a way in which I had failed to do.

Even breeders that have seen countless photographs of our herd have bubbled over with a surprised 'Whoa!' or a reserved 'Oh my gosh!' when they find themselves suddenly standing amidst an entire herd of enchanting, uniform, snow white llamas. I have even watched the eyes of a famously successful llama breeder well up with tears when one by one the animals sauntered into the barn; each one dropping a veil until the ultimate truth of our program was revealed: the whole was indeed greater than the sum of its parts.

This concept of "the herd as the single unit" runs counter to the traditional understanding of llamas as quirky individuals or as singular rare occurrences to fuel a speculative market. My motivations in creating such a herd, however, were not merely to astound,

make money in the short-term, or win ribbons. Indeed, when I began this project, I found myself swimming against the current on so many fronts that I soon sought out the quiet backwaters of our industry to take up my work. For me the herd truly is the single smallest unit upon which a breeder can wield his craft, and from the onset of this project my motivations were to create a herd that bred true, imparting both predictability and utility into a segment of the North American llama genome. In so doing I hoped to carve out a better future for both our industry, and this species here in North America.



**CQ**

### ***About the Author***

*Daniel Powell, owner and operator of One Earth Farm, has had a passion for animal and plant breeding since the age of eight. While much of his technical training in genetics was obtained while pursuing his Bachelor's in Genetics and Cell Biology, he credits his lifelong hobby and study of breed development and preservation for the bulk of his understanding. Dan has written extensively on the importance of sound breeding practices for the future of the llama industry. His articles have been published in Llama Banner, Llama Life II, Camelid Quarterly, Suri Llama Magazine and the Argentine Llama Aficionados Newsletter.*