US Alpaca Fiber Production- A Snapshot as at October 2011.

Part One: Huacaya Populations and Fleece Weight Production Estimates by Color
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PART ONE:

Preamble.
A developing interest in the utilization of fiber produced from the American alpaca herd appears to lack some fundamental understanding of just what is produced, in what colors, in what micron ranges, etc.

There appears to be a focus on 'cottage industry' consumption driven largely, perhaps, by the ability of that sector to pay high to very high prices for what is perceived to be quality alpaca fiber. Certainly the demand by this industry sector has been largely responsible for the burgeoning demand and high price for individual fleeces from particular growers but this demand will soon be outstripped by production if it has not already.

There is no doubt that the existing cottage industry demand is a fundamental building block upon which some producers have built a successful business model and there can be little doubt that this market will continue to grow (albeit at a slowing rate) as more and more fiber artisans, artists, spinners, weavers and knitters get to know and understand alpaca fiber. For many growers, this market is not readily available or open to them.

There is also the developing trend to describe all alpaca fiber as being better than what it perhaps is – claims of high insulation values, lightness, hypo-allergenic … all lead to high expectations, frustration and disappointment when sales at high prices do not occur.

Because of the history of high initial investment in animals and resources by many growers, the pressure of a slow economy and what may be an ageing alpaca owner demographic, alpaca fiber growers are looking for high returns for their fiber whilst animal sales languish in this stalled economy. In these circumstances (for many) all fiber has a value and that value is based upon a number of factors including rarity, color, high insulation value, high animal purchase prices, high mating fees, high feed bills … it is a long list of costs associated with determining price.

It is important to remember that not all alpacas produce high quality fiber and even fewer produce the elite fiber that many growers base their price expectations on.

In other words, not all alpaca fiber is equal.

Data from OFDA 2000 fiber testing results show that micron and fiber length deteriorate from age 5 years and older with 6 years appearing to be the tipping point. This is not unexpected as it is also the case for wool sheep, arguably the biggest natural fiber competitor for alpaca producers.

In an attempt to create a snapshot of the better quality end of the alpaca fiber market in the USA, the national production figures for huacaya and suri alpacas has been calculated using figures obtained from the Alpaca Register, Inc and the OFDA 2000 fiber testing data from Alpaca Consulting Services USA.

The following is the resultant snapshot for 2011.

Part One.

The purpose of this paper is to get an idea of just what is happening in the US alpaca industry in regards to numbers of alpacas in color groups and the production of fleece from those groups in micron ranges that have some spinning and processing relevance.

The numbers were derived from a comprehensive set of data kindly supplied by the Alpaca Register, Inc. The numbers of females were counted and then doubled to reflect the total alpaca production in each of the years 2004 to 2010 inclusive. Male registrations have been in decline for some years (a world-wide trend in alpaca registers it seems) so it was decided to double the female registrations on the basis that all, or most, females are registered each year.

It is important to accept that these figures only reflect registered and/or registrable animals and does nopt include what is likely to be a significant number of unregistrable alpacas.

Bay black registrations were combined with brown on the basis that spinners and processors did not want a mix of hues in solid black tops, especially where color fading on the tips was evident.

Beige was combined with fawn on the same basis as beige significantly affects the brightness and purity of white tops.

The percentages of animals in each micron range for each color was drawn from the OFDA 2000 testing results over five years.

All weight and animal numbers have been rounded to the nearest 10 for convenience and simplicity.

The weights allocated to each age group reflect skirted fleece weight based on anecdotal information collected by the author over many years and were 2.75, 3.0 and 3.2 pounds weight for the age groups in ascending order. In general, the effect of increased micron was deemed to offset the loss in staple length to simplify the numbers.

Summary.

107,480 huacaya alpacas were born between 2004 and 2010 (inclusive) and are estimated to have produced just over 320,000 pounds weight of ‘greasy’ (unscoured) blanket fiber in 2011.

The largest production group were the beige and fawn animals (31.5%) followed by the brown and bay black alpacas (26.1%) and white (25.5%). Light colored alpacas make up 57% of the alpacas in the study group.

70,810 pounds of fiber under 20 micron were produced across all color groups, 141,600 pounds in the 20.1 to 23 micron range and 107,680 pounds over 23 microns.

Discussion.

In trying to forecast production for the US alpaca herd, it is important to understand what actually makes up the herd and where he fiber is likely to come from, and in what quality (micron specifically with length a given) by color group. It is also important to have an appreciation of what the local ‘cottage’ industry is likely to consume, in what colors and what quality.

It could be argued that the majority of the under 20 micron fiber in light, grey and black colors would attract most interest from local spinners, weavers and fiber artists as these consumers are most likely to pay a premium over what commercial spinners and processors would be prepared to pay. Anecdotally fiber producers and sellers have affirmed that is it is the first and second year fleeces (usually the finest in an alpacas productive years) are the ones most sought after by local consumers and attract the highest price, usually well above any industry-wide price offered over the past five years.

The big unknown in this study is the impact of alpacas outside the register indicators. There is no doubt that an unregistered alpaca breeding and fiber growing national herd is being developed in tandem with the ARI-registered alpacas. Just how big that herd is and what its impact on the numbers suggested in this study is open to vigorous debate but it is quite probably that this herd could well number over 50,000 alpacas of all ages. This would mean that the national herd of registered and unregistered alpacas could well be nudging 300,000 or slightly more.

With declining registrations over the past few years (both here and overseas) it will not be long before the unregistered alpacas will outnumber those that are registered and will become the tail that wags the dog, so to speak.

Of concern to industry planners is how to determine population numbers and production estimates for this herd – it will not be an easy task but it is a challenge someone must take on if present industry stakeholders are to develop an infrastructure able to process and spin alpaca fiber in the USA.

While this study concentrates on premium alpaca fiber, it is important to understand that at least the same volume and weight of lesser quality alpaca fiber is being produced from within this study group and, of course, those animals outside the age parameters in this report. Some of this fiber will be able to be processed into quality product whilst a lot of it will have little commercial value apart from those producers able, and willing, to further invest in value-adding in that quality range of fiber.

The elephant in the room however is the classing and collection of all this fiber from all states of the country, a challenge outside the scope of this report but one that will consume resources, both intellectual and financial, as production of fiber ramps up exponentially as the industry heads towards 1 million alpacas by 2021 or even a year earlier by some estimations.

Tables:

Huacaya Populations & Fleece Production Weight Estimations by Color*

	White						
	Age (months)						
	<12		12.1-36		36.1-72		Totals
	# 4000		# 9000		#13700		# 26700
Micron	%	Wt	%	Wt	%	Wt	
<20	75	8250	35	9550	8	3500	21300
20.1-23.0	23	2550	50	13550	57	25000	41100
>23.0	2	200	15	4050	35	15000	19250
Total Weight		11000		27150		43500	81650

	Beige & Fawn						
	Age (months)						
	<12		12.1-36		36.1-72		Totals
	#5050		#11300		#16550		#32900
Micron	%	Wt	%	Wt	%	Wt	
<20	75	10410	30	10170	6	3180	23760
20.1-23.0	23	3190	45	15250	52	27540	45980
>23.0	2	280	25	8470	42	22240	30990
Total Weight		13880		33890		52960	100730

	Brown & Bay Black						
	Age (months)/Number of animals						
	<12		12.1 – 36		36.1 – 72		Totals
	#3860		#9200		#14140		#27220
Micron	%	Wt	%	Wt	%	Wt	
<20	73	7740	23	6360	5	2260	16360
20.1 - 23	24	2540	40	11060	41	18560	32160
>23	3	320	37	10220	54	24460	35000
Total Weight		10600		27640		45280	83520

	Rose Grey						
	Age (months)/Number of animals						
	<12		12.1 - 36		36.1 - 72		Totals
	#740		#1590		#2190		#4500
Micron	%	Wt	%	Wt	%	Wt	
<20	72	1420	18	860	6	560	2840
20.1 – 23	25	500	52	2480	45	1460	6140
>23	3	60	30	1440	30	2100	3600
Total Weight		1980		4780		5820	12580

	Silver Grey						
	Age (months)/Number of animals						
	<12		12.1 – 36		36.1 – 72		Totals
	#740		#1800		#2630		#5170
Micron	%	Wt	%	Wt	%	Wt	
<20	72	730	16	430	5	210	1370
20.1 – 23	24	240	46	1240	47	1980	3460
>23	4	40	38	1020	48	2020	3080
Total Weight		1010		2690		4210	7910

	True Back						
	Age (months)/Number of animals						
	<12		12.1-36		36.1-72		Totals
	#1560		#3770		#5660		#10990
Micron	%	Wt	%	Wt	%	Wt	
<20	68	2900	17	1920	2	360	5180
20.1-23	28	1200	38	4300	40	7260	12760
>23	4	160	45	5080	58	10520	15760
Total Weight		4260		11300		18140	33700

- Bay black has been included in brown as commercial processors are unlikely to contaminate true black with a lighter black
- % estimates are based on five years of OFDA 2000 fiber tests
- Numbers are based on statistics supplied by ARI; females registered between 2004 and 2010 were doubled to give the total numbers born in each year assuming that most, if not all, females born are registered and knowing that not all males are registered in any one year.
- The 72 month age limit is based on the estimated (anecdotal) profitable fiber production lifetime of an alpaca in the quoted micron ranges