

# **Antelope Creek**

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## ***BOER GOATS TO MARKET GOATS***

### ***THE U. S. INDUSTRY FROM HERE TO THERE***

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by

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South African Boer Goat Breeder and Judge

The South African Boer goat is generally recognized as the meat goat of the world. Eighty percent of the world eats red meat and sixty percent of all red meat consumed in the world is goat meat which translates to about 63% of the world eating goat meat. It would seem that the South African Boer goat is a major contributor in this arena. Producing meat goats is a 21<sup>st</sup> century industry in the United States due to the fact that the immigration of people from third world countries is increasing. In third world countries the goat furnishes meat, leather, milk and fiber. When these people come to the U.S. they already have a taste for goat meat which provides a built in demand for this product. Currently the demand for goat meat is so high in the United States that only 20% of the current supply is domestically produced. Eighty percent of the goat meat consumed in the U.S. today is imported from Australia and New Zealand. Striving to increase the percentage of domestically produced goat meat is one of the reasons meat goat production may be the fastest growing sector of the livestock industry today.

History records that the South African Boer goat was first imported into the United States in 1993 in significant numbers from a herd being raised in New Zealand which came from stock imported from Zimbabwe. The New Zealand Boers were raised at government sponsored stations at Keri Downs on the North Island and Erewell on the South Island. These animals were very tightly line bred from a small initial herd. If you study the pedigrees of these early imports from NZ you will find sires number Z01 and Z02 as well as 110, 115 and 117. If you studied these pedigrees you would find that all of the red goats that initially came from New Zealand had the doe number ZA99 in their pedigree.

It would seem that this doe was a dominant factor in making these goats red further illustrating the contribution of both the buck and the doe in their progeny. It is important to note that without reliable pedigree information genotype breeding programs could not have been established.

As these Boer goats were being imported into the U.S. it became apparent that pedigree tracking needed to be maintained and a breed association was established in 1993. The first Boer goat breed association in the U.S. was the ABGA (American Boer Goat Association). In 1997 the need for an additional breed association became apparent and thus the International Boer Goat Association (IBGA) was organized. In 2000 a third breed association sprang up from a division in the IBGA and was called the USBGA. At the present time all three breed associations are operating with Boer goat breeders registering their animals in one, two or all three the associations. Each association has their own educational programs, judging schools, sanctioned shows and National Shows.

There are perhaps as many as 350,000 different pedigrees in the various domestic association data bases with many archive animals from South Africa represented. The inclusion of South African genetics that never set foot in the U.S. is important to allow breeders to consider as much genotype background as possible. Once the breeder understands what the genetic contribution from the various bloodlines contributes to new generations of Boer goats the better the animals we theoretically should realize.

For the first few years that Boer goats were in the U.S. the emphasis was on more muscling in the animals while still maintaining good conformation and functional skeletal dimension. The original imports lacked meat and phenotype similarity. To gain more meat several other groups of Boer goats were imported to this country. One of the early groups to be imported was the African Goat Flock group which was also from New Zealand. The AGF goats are also called Moody Goats named for the quarantine station operator in NZ, Rob Moody. The African Goat Flock was a different gene pool and the females were stouter and had more meat in general than the original Keri Downs goats. The bucks, however, were a different story. The saying about the AGF bucks was "they were long, they were tall, but when they walked away they disappeared." They were very narrow when viewed from the rear. The two most significant bucks in the pedigrees of the African Goat Flock were WW19 and WW20. At one time I owned two of the best bucks from the AGF. These buck's names were Trooper and Ridgewalkers Rags. They were imported from New Zealand by two of the early Boer goat breeders in the U.S., Buster and Priscilla Kennedy. The Kennedys were my first partner in the Boer goat business.

About this time there was also another New Zealand group that came through Olds College in Canada and this was also the time that some Canadians began breeding Boer goats. Additional goats in Canada came directly from South Africa, an importation that was not allowed in the United States. This did not keep some of these South African Boer goats from being imported from Canada into the U.S. however.

The next significant importation came from Geoff Burnett-Smith with his ABM or Australian Breeding Management goats from Australia. Burnett-Smith spent over \$5 million of his own money bringing Boer goats from South Africa and putting them in quarantine on an island near the Australian mainland for five years. There were over 400 goats in the original ABM group with wide genetic backgrounds. The numbering system used for this group was 2xxx for the goats born in 1992, 3xxx for the goats born in 1993, 4xx for 1994 and 5xx for 1995. A point of interest here might be that I owned some of the original older 2xxx and 3xxx Boer goats from this group as well as 55 younger goats born to the original imports to the U.S. from ABM. My original famous herd sire was named Texas Twister and was ABM 3048. This genetics is what started the improvement in my breeding program in Boer goats almost 20 years ago.

The ABM Boer goats were much more heavily muscled than previous imports and contributed significantly to developing the Boer goat as a better meat goat in the U.S. These goats were phenotypical of the South African Boer goats in their native country. They were boldly three dimensional, that is, they were long, deep and wide. They had big forearms (a predictor of mass and muscling), wide, deep and long loins, thick buttocks and wide meaty shoulders.

As the industry began to grow partnerships and connections between U.S. breeders and breeders in South Africa emerged. While the live goats could not be imported directly from SA, the goats from South Africa were imported to Australia where they were mated and the resultant embryos were flown to the U.S. and birthed through recipient mothers after the embryos arrived in the United States. The importation of some of the best stock from South Africa enabled American breeders to make rapid improvement in the Boer goats being raised domestically. Through the use of artificial insemination and embryo transfer technology the rate of improvement was sped up even more.

Throughout this process the importance of pedigree tracking became even more necessary and valuable. The importance of valid and correct breeding information and the coordination of data base information between the three domestic breed associations was imperative.

As with many breeds of animals around the world it was inevitable that many of the breeders wanted to exhibit their stock in local, regional and national shows. Boer goat judging schools were set up to train American judges. In the beginning the South Africans were invited over here to conduct the schools and teach American the importance of adherence to breed standards. The South African Boer Breeders Society was established on July 4, 1959 and the first South African Boer Goat Breed Standard was set forth. The purpose of the breed standard was to provide a guideline for breeders to improve their stock and breeding programs over time. It is important that all Boer goat judges have a comprehensive understanding of the breed standards. The goat that most nearly satisfies the standards in the class should be placed at the top.

When the Boer goat was first imported to this country it was in very high demand and extremely low supply. Supply – demand economics took over with the result that many

of the early Boer goats were sold for astronomical prices. I was at an auction in Lampasas in the early days and saw 6 Boer bucks sell for a total of \$277,000 and 6 Boer does sell for over \$170,000. All but one of these goats was only three months old when they were sold at this auction. The two year old buck in the auction was there because he had broken his leg in quarantine and had just become sound enough to sell. Those were the glory days of the Boer goat in the U.S. It was during these times that Boer goat embryos were selling for \$25,000 and more. Most people thought that the Boer goat was just a fad like the ostrich and emu craze but what made the Boer goat different was the underlying demand for goat meat.

The Boer goat industry has thrived for almost 20 years now in the U.S. While the average price for a fullblood registered Boer goat has dropped significantly at the numerous production sales being held around the country a good number of “show quality” animals still change hands in the \$20,000 to \$30,000 range. Most production sales today see an average sales price of about \$600 per animal or a little less.

The Boer goat has been included in the 4H and FFA programs around the country for many years now. In addition youth programs are growing in all three breed associations. Junior shows at the national level have been held for several years now and are usually held in the same time and same venue as the senior or National Show. Just as there are many benefits to raising goats in 4H and FFA the breed associations offer many programs for young people from poster presentations, to stick horse races and boot scrambles at the national show. Being a member of all three breed associations I have had the opportunity to attend many national shows. It is gratifying to me to see the family atmosphere and the participation of many young people at these shows. In fact, last year at the IBGA National Show in Louisville, KY a group of over 20 young people with their sponsors drove all the way from Maine to participate in the show. Many adults see the importance of including junior members and having programs to keep young people involved with Boer goats. Some young people even have their own flocks and their own member prefix and tattoo.

With the growth of the sanctioned show program there are perhaps as many as 200 Boer goat shows around the country each year. These shows include classes for fullblood goats, percentage goats and commercial (meat) goat classes. The commercial classes are usually for goats that have not been registered.

As the show program has grown and evolved a new type of goat began to emerge, the wether meat goat. Rather than showing Boer goats in the 4H and FFA shows the agricultural extension programs around the country began to promote wether goats. These wether goats are judged on meat and conformation and breed standards do not come into consideration. The judges of both Boer goat shows and wether goat shows have a tremendous influence on the development of the type of goat shown in the ring. People want to win blue ribbons and they notice the type of goat that is winning the blue ribbon and they try to raise that type of goat to impress the judge. If the judge changes the type of goat he prefers the phenotype of the goat being bred changes for the better and perhaps sometimes for the worse.

At the present time the type of wether goat placing high at most shows has a cylindrical body, a big loin, wide shoulders and a meaty buttock that extends out from the tail head and comes back rather high on the back leg. The rump is a little short and the tail head is set a little low on the rear end. This type of wether goat is set high off of the ground with long legs and a high chest floor. The phenotype of this wether goat is similar to that of a show lamb. In many cases the wether is braced like a show lamb in the show ring.

To produce this phenotype in a wether from Boer goat stock takes a different type of sire and dam from the “South African” style of Boer goat. These “wether sires” are normally very long with long neck extension and possess little overall balance. The emphasis is on producing wethers with a lot of loin and a lot of hip and butt. I have heard this type of wether sire called “freaky long and freaky tall”. The influence of this phenotype in the Boer goat show ring is also reflected by the type of Boer goat selected for top places by judges with training in judging the type of wether I have described above.

At the present time we see different types of judges choosing different types of Boer goats in Boer goat shows. There is the “American” style Boer goat and the “Old style” or “South African” style Boer goat. From time to time the pendulum seems to swing both ways.

Over time there has been more emphasis on producing goats that produce a lot of meat. Carcass evaluation seminars are being held around the country and included in some of the judging schools being taught today. One thing that becomes apparent when evaluating meat goat carcasses is that a goat is NOT a sheep. The quality grades used in evaluating sheep are based partly on thickness of back fat. A sheep puts fat on the carcass over the body while a goat deposits fat internally around the internal organs (KPH – kidney, pelvic and heart). Even goats that have been fed high concentrate feed for a long period of time will have minimum back fat, therefore, measurements used to evaluate sheep carcasses are not effective in evaluating meat goat carcasses. As of today there is still no generally accepted way to evaluate meat goats. The USDA has their IMPS (Institutional Meat Purchase Specifications) with their live evaluation of Selection One, Selection Two and Selection Three. Langston University has their BCS (Body Condition Score) of 5, 4, 3, 2, 1. Five is the top score for Langston’s procedure and Selection One is the top for USDA. Many of the research papers being produced about meat goats today still use back fat measurement and rib eye volume between 12<sup>th</sup> and 13<sup>th</sup> rib as the principal criteria. A goat is not a sheep and should not be evaluated as such. They are entirely different animals.

The reason that the fat is deposited differently on goats and sheep is the fact that sheep and cows are grazers and eat mostly a meter and below to the ground, primarily consuming grass while the goat is a browser and normally eats at a distance of a meter and above the ground, primarily consuming leaves, twigs and weeds. Given a choice a Boer goat’s diet normally consists of 16% grass according to studies in South Africa. This distinction in the eating habits of goats and sheep is one of the contributing factors that makes goat meat the healthiest red meat that you can eat, low in cholesterol and low in fat but high in protein. What makes the Boer goat so hardy is that they are

opportunistic, that is, they will make a living on the food that is available even if it is only grass. The Boer goat is bred to be highly fertile, very gentle, easy to breed with good mothering ability and able to make a living under harsh conditions with low quality food according to the South African Boer Breed Standard.

As the production of meat goats with the help of pedigreed Boer goats gains in popularity it may be beneficial to track the pedigrees of the stock that are producing the best meat or market goats. This function could also be done by the Boer goat breed associations as I doubt that pedigree associations will spring up for meat goats that are going on a truck to be butchered and consumed at eight to twelve months of age.

What would obviously follow from the breed associations tracking of the genetics of market goats would be sanctioned Market Goat Shows at the National level. The ABGA has had wether goat classes at their national show the last two years but the participation has been rather small (less than 60 goats). Perhaps a better approach to a National Market Goat Show might be to have it at a different venue at a different time than the national Boer breed shows. With separate promotion and perhaps some different people participating this aspect of recognizing meat goat production might grow even more. Of prime importance and consideration should be not only a live animal exhibition but also a carcass evaluation of these animals at the show. This is sometimes called a “Hoof and Hook Show”. Australia has been having this type of show for years with the champion carcasses being widely recognized and highly appreciated.

In October 2011 I participated in a meat goat carcass evaluation, fabrication and marketing seminar. We measured 8 live wethers, butchered them, evaluated the carcasses and displayed and discussed them at the seminar. A lot was learned from this exercise and it became very apparent that butchering and evaluating the meat goat carcasse was imperative in determining the best production goat. The live goats were not only measured for various things such as circumference of forearm, length of top line, depth of body, width of shoulder, width of loin, length of loin, depth of loin, width between eyes, length of face from horn set to muzzle, length of distance between end of nostril to tip of lip (a measurement in evaluation of kids in Australia), and a few other considerations. Live goats also had their ribeye measurement sonogramed. By performing these live measurements we could try to correlate measurements on the carcass such as seeing if the circumference of the forearm on the live goat correlated with the volume of ribeye measurement on its carcass. Through studies such as this around the country the Boer goat and meat goat breeder can gain information to formulate better breeding methodology.

In my opinion the show ring should place more emphasis on function over form and production over “pretty” if we are to improve and realize better meat goats with higher meat to bone ratio. Pedigree tracking of the top producing meat goat sires and dams is crucial to getting where we want to go in the meat goat industry in the U.S. One final comment regarding pedigree tracking would seem to be in order. The beef industry and dairy industry have been using EPDs (expected progeny differentials) for many years in their livestock production programs. When I was in New Zealand judging their National

Boer Goat Show in November 2011 I visited with a firm that has found DNA markers to correlate with EPDs in both cattle and sheep. It is just a matter of time before they have identified these DNA markers for goats as well. A vision of the future might be a breed association registration and pedigree tracking system that records EPD data (birth weight, weaning weight, 200 day weight, etc.) and is also able to record the identified DNA marker data for various sires and dams. I also think that serious consideration should be given to maternal traits such as number of kids birthed, number of kids weaned, average daily gain of each kid, total weight of kids per kidding, total weight of kids weaned per gestation, etc. Some initial efforts have been made in this regard (the BGN program with ABGA) but much more effort is needed. Dr. David Notter and his group at Virginia Tech have developed the NSIP (National Sheep Improvement Program) that is used around the world. It is just a matter of time before we have a NMGIP (National Meat Goat Improvement Program). That is my dream for the future.

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