Why Savannahs?

Brian Payne, Executive Director, North American Savannah Association

I had no idea that Savannah goats even existed when I travelled to South Africa in 1996. Like the rest of North America I was enamoured with Boer goats and the catalytic effect that this new breed could have on agricultural production and rural development:

"We would like to see these animals marketed as a plank in Western Canada's diversification process, rather than an exotic boom fuelled by short term speculation.…We'll soon be looking at soliciting interested parties to contribute to the development of this breed and the chevon industry in Western Canada. I envision the formation of a cooperative breeding association with a focus on the production of a superior meat product for the consumer."

(B.Payne, "Alberta may be first North American stop for Boers", SLANT (Alberta Goat Breeders' Publication, 02/1992)

“Meat goat production can play an important role in stabilizing rural communities by: diversifying existing farming operations; creating new opportunities for value added processing;

offering young people a low cost start up venture or lifestyle oriented, part time farmers a supplementary income. At the same time, meat goats can improve land use by providing a biological control for some weed species and by arresting brush encroachment. Minimal resource usage (water and grain) will make meat goats an increasingly important component of the sustainable agriculture equation on a world scale.”

(B.Payne,1996 personal communication to Mr. Robert Banta, Chairman, South Central New York Resource Conservation and Development project, Norwich, N.Y.)

"Increased production of red meat from North America's rangelands also involves the broader application of the principles of multi-species grazing. This principle, although widely recognized at the academic level, is poorly applied..at the commercial production level. Historic conflicts over grazing land (sheep/cattle) and significant economic and social disparities between producer groups (goats/cattle) have undoubtedly contributed to the slow…adoption of multi-species grazing as a production enhancing technology."
(B.Payne, 1996 personal communication to Mr. Herb McClane,

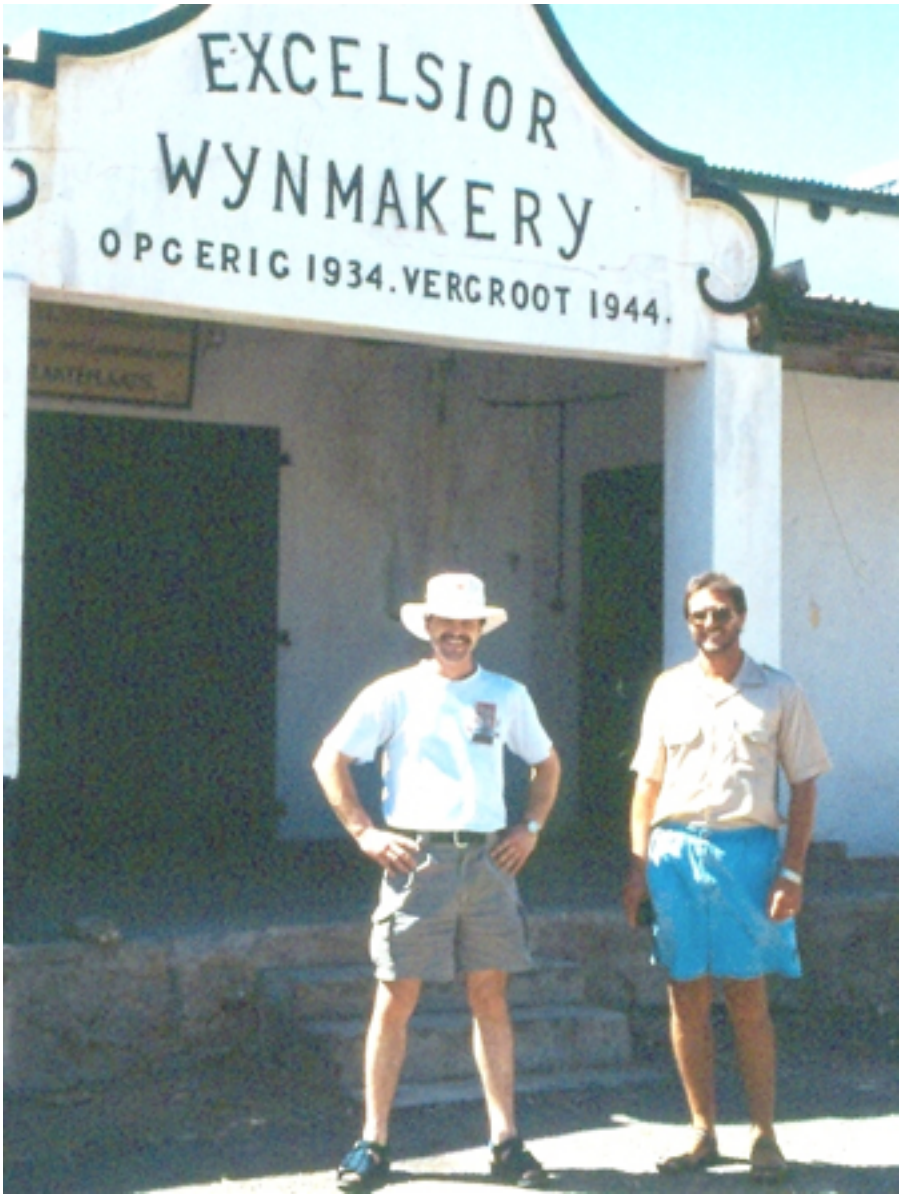
Canadian Beef Breeds Council)

I had been invited by the South African Boer Goat Breeders' Association president, Mr. S.W. ("Boetie") Malan to attend their National Show at Worcester in the beautiful Cape province. Pioneering the introduction of Boer goats into the North American marketplace had been exhilarating; but the prospects of ranch visits and personal contact with internationally recognized Boer goat master breeders, positively humbling.

As president of the Canadian Boer Goat Association, I had communicated regularly with "Boetie" for several years. At first our communication was over the issue of South African pedigrees being recognized by the Canadian Livestock Records Corporation (CLRC) and the Canadian requirement for three generation pedi-

grees. Later we enthusiastically discussed the need for breeder education in North America on the South African Boer goat breed standards and the organization of a tour and education seminar in Canada in 1995. My trip to Worcester was to be an extension of my own eager embrace of the Boer goat breed and the incredible culture that had nurtured it into existence.

I was not disappointed. This was truly, the oft repeated, “trip of a lifetime”. The unfortunate realities of apartheid seemed less relevant and almost disappeared as I listened to the Afrikaner viewpoint over many late evening barbecues hosted by my new South African friends. Their passion for their Boer goats paled in com-



parison to the love of their country and the struggles they had endured to wrestle productive agricultural operations from a sometimes difficult and unforgiving land. (Photo above is Keri-Rose partner Steve McCulloch on left, and Danie Schoeman, Excelsior Boer Goats)

(Dawie van Zyl with ancient South African rock paintings.)

"The tip of South Africa is known to seafarers as 'The Fairest Cape in all the World' but also as 'The Cape of Storms'. These divergent opinions also apply to the rest of South Africa with its widely divergent climatic conditions and ecosystems….Although extremely beautiful, the natural environment of South Africa is also a cauldron containing a

witches brew that tests all living organisms to the utmost."
("The Boer Goat - Outstanding Producer of Red Meat from Low Quality Grazing", Boerbok Nuus, 1998)

Dr. Quentin Peter Campbell's eloquent description of the South African environment was less familiar to me than his insistence on the importance of performance testing and his admonitions to breeders to "select for productivity and not for fancy points". While consulting for Landcorp Farming and their New Zealand Boer Goat's North American market entry, I had become very aware of his prominence in South African small ruminant academic circles and his position as "Officer in Charge of the Mutton Sheep and Goats Performance Testing Scheme". While in South Africa, I was determined to visit his home in Bloemfontein because his performance bias matched my own:

"The adaptability of a sheep or a goat can be determined to a large extent by means of the following parameters: health, mortality, reproduction and mass gain…performance testing in actual fact also measures adaptability…Commercial and stud breeders should keep records of the productive traits of their ewes and should select for productivity and not for fancy points..should stud breeders persist in paying a lot of attention to split scrotums and the amount of red hair and spots which may be allowed…very little genetic improvement for economically important traits will be made."
(Dr. Q.P. Campbell, "Performance Testing and Adaptability of Boer Goats")

It was during this 1996 visit that I first became aware of Savannah goats. My descriptions of a drought prone Canadian prairie ecosystem; which could see wild temperature extremes due to our Chinook winds, relatively high altitude and continental

climatic zone, inspired Dr. Campbell to speak at length on the importance of adaptability on the development of the indigenous goats of South Africa. As the president of a breed association, he also advised me to develop our Canadian Boer Goats with a strong emphasis on performance testing and warned me not to ignore the environment and the strong influence of natural selection in shaping economically productive livestock breeds.

"In the case of the unimproved breeds animals are selected according to nature's ruthless law, namely that the specie is more important than the individual and only the strongest and fittest may survive and reproduce. As soon as breeders start to farm with a breed, breed standards are laid down and animals are selected for traits which mostly have no or very little economic value in order to obtain uniformity. Traits such as colour, shape of the head and horns, length of leg, straight back and type are paid a lot of attention to in the selection

programme of the breeder. Not only do a number of these traits have very little economic value but some of these traits can also adversely influence the adaptability of goats."
(Dr. Q.P. Campbell, op. cit.)

As I was leaving, Dr. Campbell handed me a small book that he had authored. It was titled, "Origin and Description of the Well-adapted Indigenous Fat-tailed and Fat-rumped Sheep breeds and Indigenous Goat Breeds of South Africa". This was my first introduction to Savannah goats and I was immediately fascinated!

His book described how the development of the Boer goat breed as well as the "upgrading" of indigenous goats with Angora stock had resulted in a situation where "the true indigenous goats of South Africa have virtually been bred to extinction." In this

process important economic traits such as “viability, good mothering ability, disease resistance…against heart water….ticks and other external parasites” had been lost except where these hardy, unimproved indigenous goats were being maintained by private breeders or government research institutes. The indigenous white goat stud of D.S.U. Cilliers and Sons was just such an example. In this way I was introduced to “The Savannah Goats of Olierivier” (“Origin and Description etc. p.36).

Savannah goats (spelled Savanna in Afrikaans) were developed in South Africa from the same lop-eared and multicoloured indigenous goats that the Boer goat breed was created from.

Speckled goats (skilder bokke) were described as early as 1801 by Barrow. Van Rensburg (1938) described them as one of five different classes of Boer goats. These roan or skilder indigenous

goats he described as “Ordinary Boer goats”. Modern, improved Boer goats, Savannah goats and Kalahari Reds were all developed from this type of indigenous goat.

This Khosa (Xhosa) Lop Eared buck is another example of the indigenous goats of South Africa described by Dr. Quentin Campbell. This breed has also been described as a Loskop South indigenous goat after the research station that created a conservation program to protect it. In the first journal of the SA Boer Goat Breeders’ Association (1959), Mr. T.B. Jordan described the purchase of a ‘big robust dappled coloured male goat’ which influenced the Buffelsfontein Boer goat stud and the breed in general.”

While the Boer goat breed was created by many stud breeders with the show ring in mind, Savannah goats were started on a single farm with the benefit of an experienced animal scientist like Dr. Quentin Campbell as a motivated mentor. “Quenty” encouraged the vision of the D.S.U. Cilliers indigenous stud. Savannah goats were expected to survive and breed on typical savannah veld with minimum care. . The result was a fertile, heat, drought and parasite tolerant genotype that could also produce a reasonable carcass. The breed was recognized and a breed society established in 1993.

Front, from left to right: Neville Du Toit, Lubbe Cilliers, Elmarie Human(Secretary), Dr. Quintin Campbell
Back, from left to right: ‘Unknown’, Merwin Swart, Gert du Toit, Koenie Kotze, Frikkie Vermeulen

Breed founder Lubbe Cilliers and Dr. Quentin Campbell are pictured here with the founding breeders of the Savanna(h) Association of South Africa. Koenie Kotze has also been a significant

international promoter of the breed in modern years. Kotze genetics were the foundation of the modern Mincey and Indian Territory Savannah herds.

Dr. Campbell described the breed as “the ultimate easy care” goat (Origin and Development of Savanna Goats) and his answer to the question, “Why Farm with Savannas?”, is as follows:

> “Trials conducted at Ellisras in the Northern bushveld with Loskop-south indigenous rams did not develop mouth, leg or hoof problems as was the case with some Boer goats.
>
> White Savanna goats developed fine cashmere fibres of high quality during winter months. However all Savanna goats are mainly selected for growth and carcass traits and muscling.

Savanna goats produce a high net profit because of low input costs.

These goats have low mortality and are to a large extent disease resistant.

Very good mothering ability and milk production of the ewes ensure fast growing kids.

Savanna ewes must be able to kid in the veld and rear their kids without assistance of artificial aids and without kraaling (corralling) the kids.

Savanna goats require minimum handling or care."

I didn't pay much attention to these positive descriptions of the Savannah breed until several years later. Both Kate and I were working full time with our very expensive herd of embryo derived Boer goats. Poor dentition and excessive hoof growth was not nearly as frustrating as mothers that abandoned their kids, didn't milk, or even worse; those that decided to pick a favourite kid and then completely ignored the rest of her litter. "What true mother does this?", I agonized as only an impatient male surrogate care-giver can!

I spent a lot of time in denial. After promoting the breed so enthusiastically I now found myself rationalizing our Boer herd's suspect maternal characteristics as a situational problem rather than a breed problem per se. I reasoned that it was the "inevitable" result of the closely confined quarantine rearing process (a pre-requisite for the importation of South African Boer goat genetics) and a CAEV prevention program that necessitated artificial rather than dam rearing.

My nagging doubts about our Boer goat investment culminated in a restless search for "answers" and I started reviewing some of the literature that I had collected from my consulting work for Landcorp and from my South African trip in 1996. The following quotations didn't comfort me, instead I became more determined to evaluate other breed options:

> *"I would like to make an appeal that we think very seriously about factors such as fertility, hardiness and mothering characteristics, all those attributes which have been bypassed in the process of breeding show animals."*
> (S.W. Malan, Presidential Annual Report, Oct. 27 1993, Kimberley, RSA, as reported in Boer Goat News 1994, p.6)

> *"One of the main problems in the Boer goat industry is that of ewes not being able to raise multiple lambs. A high lambing percentage (kids born/ewes mated) are obtained but, mortalities result in a low weaning percentage (kids weaned/ kids born)."*
> ("Facet Lay-Out for Continuation of Research with the Improved Boer goat flock of the Dohne Agricultural Development Institute at Adelaide Research Station", M.M. van Niekerk, C. Trethewey, 1995)

*"Adaptability of improved Boer goats was challenged in a comparative study under harsh managerial and environmental conditions…on a bushveld farm in Northern Transvaal (Ramsay et al 1987)…**Traditional goats recorded 102% kidding followed by 14% mortality compared to 120% kidding of Boer goats followed by 76% mortality."***
("The Boer Goat. I . Origin, Adaptability, Performance Testing, Reproduction and Milk Production", Small Ruminant Research, 1 (1988), p. 291-302, N.H. Casey, W.A. van Niekerk)

The Ramsay reference to “traditional” goats immediately reminded me of Dr. Campbell and his enthusiasm for the Cilliers' Savannah goats and other indigenous South African livestock. The range based meat goat enterprise that I felt would match Western Canada’s prairie and parkland surely needed a hardy, well adapted breed. A meat goat breed that could thrive with a low management input would surely fit into the “Low Input Sustainable Agriculture” philosophy that was being espoused by the professional agronomists of this era. Low labour requirements would enhance the opportunities for creating larger operational scale: a prerequisite for modern agricultural production. Even more exciting from my point of view was the ability of the Savannah goat to survive and reproduce with variable and sub-optimal nutrition: a fact of life on the Canadian prairie.

In 1999 I was blessed with a second opportunity to travel to South Africa and secure new genetic material. Perhaps a new source herd was what was needed to solve my concerns with Boer goat maternal issues!

Myself (on left), Savannah breed founder Lubbe Cilliers and Canadian companion Guy Haines.

More importantly, I had been following up on my interest in Savannah goats with Lubbe Cilliers, the breed founder, but wanted to see his livestock in their natural environment as Dr. Campbell had previously advised.

This time my primary source for Boer genetics was the Paardefontein stud of Boetie and Stephanus Malan. Only the best ewes were selected and we were fortunate to flush daughters of “Noster”, “Popeye” and “Vlek”. Noster and Popeye were the first two rams selected for nationwide semen distribution in South Africa. Vlek had topped the prestigious Kimberley sale and was Boetie’s best known ram of that era. We were also fortunate to use a Vlek grandson in our embryo program who Boetie described as “better than Vlek as a two tooth”. This was the largest sampling of elite Malan genetics ever to arrive in North America.

Those who had been suggesting to me that our first North American Boer importations were below par in terms of quality or that our artificial rearing was to blame for sub-standard performance would be challenged by my determination to evaluate Boers and Savannahs side by side, under the same management and in the same production environment. The first embryo derived Savannah goats in North America were born on the Keri-Rose Scandia, Alberta farm in 2000. Beside them were our newest Malan genetic contributions to the South African Boer goat gene pool.

One of the eager witnesses to this historic event was Pat O’Brien, an investor in the new Boer genetics and president of the Canadian Boer Goat Association. He watched with amazement as the first Savannah kid arrived squealing and shaking the mucous from its head. All the while this new life force was crawling with determination towards the exposed udder of the Spanish recipient doe who was still lying on her side. The energy and determination of the Savannah newborn so impressed Pat that he purchased Savannah embryos for implantation the next year. His Boers were sold soon after and were replaced with the Keri-Rose Spanish recipient does.

2000 also saw Keri-Rose move its Boer and Savannah genetics to North Carolina. The Turkey Tracks herd of Steve Quinn and Sharon Valentine provided us with an excellent opportunity to compare our Savannahs and new South African Boer genetics against the Turkey Tracks New Zealand Boers and Boer/Spanish crossbred commercial does.

61 yearling does of 3 different breeds or breed combinations were exposed to bucks of the same age in the spring of 2001 in order to assess their potential for breeding “out of season”. Since early sexual maturity and the ability to breed year round are highly desirable productivity characteristics for commercial meat goat production, identifying animals in a breeding herd that possess these traits is essential for genetic selection. (It should be noted that no synchronization techniques or prostaglandins were used in this small on-farm trial.)

As you look at some of the summary tables below, please note that the relatively short period of recordation (October, 2000 to September, 2002), small numbers and lack of replicates should caution all readers to not draw hasty conclusions about breed differences. All I can say is, I sold my Boers; just like Pat O’Brien!

Table 1 - Reproductive Performance - Yearling Does - Spring Breeding

Group Genetics	# in Group	Preg. Rate %	Kidding Rate %	Weaning Rate %
South African Boer	14	63	164	129
New Zealand X South African Boer	22	64	168	141
Savannah	7	89	171	**157**
Boer X Spanish/ Boer	7	78	114	100
Savannah X Spanish/Boer	11	85	164	**164**

Pregnancy rate % = Does kidded/Does Exposed
Kidding rate % = Live Born/Doe Kidded
Weaning rate % = Kids weaned/Doe Kidded

* All yearling bucks
* * “Yearlings” were all one year plus/minus 2 months of age
*** Kidding and Weaning data/doe exposed NA (does sold preg)

Table 2 - Reproductive Performance - Spring Breeding - Yearling Bucks

Buck #	Type of Mating	# Does Exposed	# Does Kidded	Preg. Rate %
1	Pure Boer	14	9	64
2	Pure Boer	18	8	44
3	Pure Boer	19	12	63
4	Pure Boer	15	14	93
5	Boer/Xbred	9	7	78
6	Savannah/ Xbred	13	11	85
7	Pure Savannah	5	5	100
8	Pure Savannah	4	3	75

Table 3 - Total Mass Weaned (100 Day Adjusted Weights)

Group Genetics	Average Total Mass Weaned (lbs)	Market Value/Breeding Doe
South African Boer	43.6	?
NZ X SA Boer	54.7	+
Savannah	56.3	+
Boer/Span X	55.2	+
Savannah/Span X	61.2	++

Keri-rose was the first breeder in North America to import Savannah embryos from South Africa. Our foundation herd was established in 2000 and is currently the only registered full-blood herd in Canada. Keri-Rose has participated in the Kentucky State University performance recording program administered by Dr. Ken Andries (G.H.I.P.) since 2009. We are passionate about our goats and the importance of maintaining their “easy keep” South African heritage. Keri-rose currently provides consulting services for Hurlburt Ranch, Fort Macleod, Alberta.

Breed registration services are provided by the North American Savannah Association through Associated Registries, asregistry@gmail.com. Questions should be directed to Brian Payne, savannahassociation@yahoo.ca.