



A century of South Devon

In the 100 years since the South Devon breed was registered in South Africa, much has changed. Some qualities, such as commitment to excellence and profitability, have stayed the same. Others have improved. The breed has adapted to the rigours of the South African environment and can more than hold its own in the competitive world of beef production.

The first South Devon cattle arrived here by sea from England more than 100 years ago, destined for the farmers of the Natal Midlands. Originating from Devon and Cornwall in southwest England, the breed consisted of large-framed, dual-purpose cattle. In addition, they were used for draught work.

Today, after a century of careful selection, the breed has evolved into a hardy, medium-framed, beef animal, and breeding herds can be found throughout central South Africa, mostly in the

Northern Cape, Free State and Eastern Cape, where they thrive in extensive conditions. Unusually for a British breed, these animals have inherent disease resistance.

Found on five continents, South Devon cattle have a reputation for adaptability and longevity, and can stay in production for up to 15 years of age.

RECORDING

Diligent measuring and recording means that breeders can calculate breeding values, and establish trends to focus and direct herd progress.

ABOVE: In South Africa, a century of selection has seen the South Devon breed evolve into hardy, medium-framed beef animals. PHOTOS: SOUTH DEVON CATTLE BREEDERS' SOCIETY OF SA

All South Devon breeders take part in measuring and scoring for various traits, making it easier to define breeding values. Common sires form linkages and make it possible to evaluate the merit of different herds, management groups and production environments.

Contemporary groups – animals born in the same season, on the same farm and raised under the same feeding regimes – are an important tool for genetic evaluation says animal scientist Leslie Bergh. He has described economically important traits in South Devon cattle for 22 years.

Breeding value, an indication of fertility, calving ease, calf growth, milk production and cow weight, stayed constant in the South Devon population from 1990 to 1996. During the following decade, it rose significantly before easing off. This trend illustrates the improvement in cow value associated with these traits.

The South Devon cow is known to be an early maturer, and heifers raised on sourveld are bred at 24 months. Breeding earlier than this can have a negative effect on first-calver reconception



rates, in taxing climatic conditions accompanied by lean feeding regimes.

"The environment dictates what my animals do," says John Miller, president of the South Devon breed society.

He adds that stud animals lose the function for which they were intended if they are not raised in an environment that mimics commercial conditions.

FUNCTIONAL TRAITS

South Devon cows have inherited the genetic advantages of the original dual-purpose animal in their abundant supply of good quality milk. This is an important factor in calf growth and high weaning weights that consistently exceed 45% of the dam's weight. Average birth weight, contributing to calving ease, decreased by 1,67kg from 1996 to 2012, with a phenotypic value for birth weight of 40kg in 1990 and 35,7kg in 2013.

Geneticist Prof Frikkie Neser, of the University of the Free State, has

described fertility as a complex trait of the highest importance. South Devon cows score high on calving interval, and the average ICP is less than 400 days. In the 2009/2010 season, the ICP was 395 days; in 2010/2011 it was 386 days; and in 2011/2012 it was 380 days. According to SA Stud Book, the ICP for the breed decreased by 4,5 days between 1990 and 2008, showing genetic improvement in fertility.

The breed recorded the best inter-calving averages of all beef breeds participating in ARC's National Beef Cattle Performance Testing Scheme in the last five years.

CROSS-BREEDING

The obvious benefit of the F1 cross is the rate of gain through hybrid vigour. The South Devon can improve fertility, calving ease, milk production and temperament, as it has high docility scores, resulting in a reduction of stress and therefore



TOP RIGHT: A good example of a modern South Devon sire, with a well-muscled, smooth coat.

ABOVE: The South Devon cow has an abundant milk supply that contributes to high weaning weights.

improved carcass quality. The SA South Devon Breeders' Society encourages breeders to participate in Phase D on-farm growth tests. Continual measurement and evaluation makes it possible for the breeder to provide commercial farmers with the most profitable genetic material, with optimum tolerance to various environmental and management regimes.

POLLED GENES

The introduction of polled genes is receiving attention in many breeds, and SA's South Devon breeders will be making the first polled bulls available for sale this year. Polled semen has been

of Pretoria. Breeders are confident that the polled bulls will add significant value to the national herd and benefit stud breeders and commercial farmers.

The polled trait is dominant and will therefore be expressed in the phenotype of a heterozygous animal and the phenotype of a dominant homozygous animal. The recessive horned trait will only be phenotypically expressed in a recessive homozygous animal.

The horned gene present in the heterozygote, on the other hand, will only be expressed in the genotype. The scurred gene can also be present on the allele, which

POLLED BULLS WILL ADD SIGNIFICANT VALUE TO THE NATIONAL HERD

introduced to the breed through imported Australian bulls with exceptionally good EBVs.

With benefits such as less bullying at feeding, less tissue bruising and hide damage during transport, and safer handling for animals and stockmen, there are clear advantages to selecting for the polled gene, explain Este van

Marle-Köster and Japie van der Westhuizen, animal scientists at the University

adds a certain amount of genetic complexity.

Breeders should check and record young animals for scurs or horns so that DNA tests can identify homozygous polled animals for breeding purposes. Fresh genetic material must be introduced timeously to ensure genetic diversity.

The South Devon breed is now poised to enter its next successful century.

• Phone (051) 410 0967 or visit www.southdevon.co.za.

