

Drakensbergers bred to produce on the Free State veld

In 2000, **Liesel Foster** returned to Quaggafontein near Zastron in the Free State to farm with her father, Jack Human. Sixteen years later, she is in charge of 300 veld-adapted Drakensberger cows that have served as the subject of research in two ground-breaking studies. **Mike Burgess** reports.

Despite the gruelling drought, Liesel Foster's Quaggafontein Drakensberger herd have achieved an 87% conception rate this year, while never achieving a conception rate of less than 90% from 1986 to 2015.

The Drakensberger story on Quaggafontein began in 1980 when Liesel's father, Jack Human, purchased his first bull to improve temperament and calving challenges in the family's crossbred herd.

Today, more than 35 years later, the Quaggafontein Drakensberger Stud, farmed exclusively on 3 559ha of veld, are respected for their exceptional fertility. They have also played a role in the master's and doctoral degrees awarded to Liesel by the Central University of Technology (CUT) in Bloemfontein.

Liesel believes that, in time, maize production will have to

be prioritised to feed a growing human population rather than livestock. In turn, this will result in beef producers having to farm with cattle able to perform efficiently and economically under forage production systems.

"There's going to be an increase in the trend for cattle to be kept on land that cannot be used for direct cultivation of human food," she explains. "Consequently, the increased utilisation of roughage [in beef production] can be expected, with grain playing an ever-diminishing role. This is where I believe the Drakensberger breed comes into its own."

As a result, the Quaggafontein Drakensbergers are farmed extensively, and effective veld management is a priority to Liesel.

"Grazing is the most important constraint in an extensive production system

and the management of the rangeland is the most important pivot on which a successful extensive beef production system hinges," she says.

THREE-GROUP CAMPS

After considerable research, Liesel has opted for a three-group-camp grazing system developed for *Elionorus (koperdraad)* sour grassland by Dr Mias van der Westhuizen in 2011.

The system, she says, aims at ensuring a full season's rest for a camp every three years within the context of the controlled use of palatable and under-utilisation of unpalatable grasses.

"It's based on the principle that grazing stimulates grass growth, so I attempt to graze camps in such a way as not to over-utilise the palatable grasses. The under-utilisation of the unpalatable grasses causes them to become moribund and they eventually die off. This provides an ideal seedbed for the more palatable grasses."

BELOW:
A group of Drakensberger bulls on Quaggafontein with the neighbouring former Transkei areas of Sterkspruit and Herschel in the distance. The 80-cow Quaggafontein Drakensberger Stud plays an important role in producing bulls for the commercial herd of 220 cows.
PHOTOS: MIKE BURGESS





The system is controversial, concedes Liesel, but she believes that high-intensity grazing is a short-term solution and in effect stimulates the growth of unpalatable grass species.

FERTILITY— THE MAIN PARAMETER

Because fertility in cattle breeding is six times more important than any other production parameter, it is of central importance in the Quaggafontein Drakensberger herd's selection processes.

Furthermore, says Liesel, although environmental constraints go a long way in determining the size of individual cows, strict selection for fertility will always ensure that animals do not become too large to produce effectively from the veld.

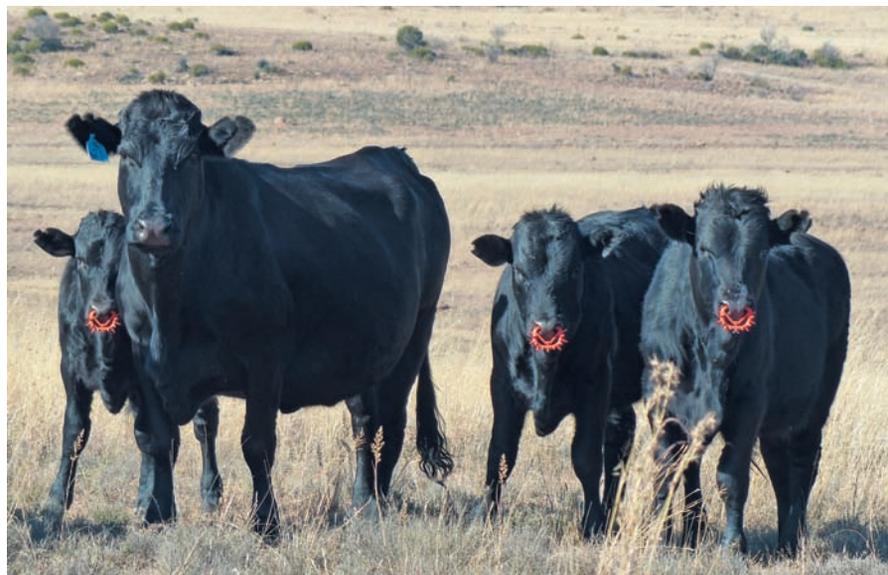
The average adult Quaggafontein Drakensberger cow weight is 550kg, which is large for the area, she says.

"The environment places a constraint on the size of an animal, but if your main selection criterion is fertility, your animals can never be too big."

Liesel uses self-bred bulls in her 220-head commercial herd. Sires for her 80-cow stud herd are purchased only from breeders who farm under similar conditions and have the same breeding objectives as Liesel.

ABOVE: 'We've been selecting animals to produce and reproduce in the conditions in which they are farmed,' says Liesel about her Quaggafontein Drakensbergers. 'The Drakensberger has never disappointed us.'

ABOVE RIGHT: Quaggafontein Drakensberger cow and calves in the south-eastern Free State. From 1986 to 2015, the Quaggafontein Drakensberger herd consistently achieved a conception rate of at least 90%.



"Young bull calves are subjected to an extensive growth test," she says. "I use the interaction between genotype and environment (G x E) to identify the animals that perform better under extensive grazing conditions. Importantly, there's no correlation between growth/production under intensive and extensive conditions."

BODY CONDITION

Because spring rains have been late in the past few years, Liesel has moved the breeding season a month later to allow cows to calve closer to the summer rains. Bulls are put to two-year-old heifers

pregnant again and they are thus retained in the herd," explains Liesel. "For this reason, the three-year-old first-calf heifers receive the same supplements as the cow herd."

All calves are marked at birth to ensure that intercalving periods and wean indices are calculated correctly. They weigh an average of 40kg at birth and are weaned between five-and-a-half and six months at an average weight of 215kg. The early weaning of calves ensures that cows do not undergo the strain of suckling calves in mid-winter, allowing them to gain significant weight from weaning to calving.

'IF YOUR MAIN SELECTION CRITERION IS FERTILITY, YOUR ANIMALS CAN NEVER BE TOO BIG'

from 1 December to 28 February; cows are put to the bull from 15 December to 31 March.

The Quaggafontein Drakensberger herd's average intercalving period is 394 days, despite three-year-old first-calf heifers not receiving any extra supplementation in their attempt at a second calf.

"Giving these animals additional feed causes less-adapted animals to become

In addition, at weaning, cows with poor mothering abilities are culled, while all heifer calves weighed at 12 months are culled according to body condition scores (BCS).

"To me, body condition scoring is the most important tool on the farm," says Liesel. "It's simple and easy to do and is an indication of the feeding status of the animals. I try to keep the BCS above 2,5 (out of a possible five)."