

Establishing a beef herd

Whether commercial or stud, a herd has to be correctly established in order to achieve sustainable economic production. Simmentaler breeder **Hennie Viljoen** and general manager of Simmentaler SA **Flaf Lauwrens** spoke to **Gerhard Uys** on how a novice should go about it.

Hennie Viljoen established his Simmentaler herd in 1968 with four cows imported from Germany. In those days, importing cattle was cheaper than buying them locally. His farm, Vlensburg, is situated near Parys in the Free State. He works with Simmentaler South Africa and uses BreedPlan estimated breeding values (EBVs) as a crucial selection tool to build and manage his herd.

EDUCATION FIRST
Flaf Lauwrens, GM of Simmentaler South Africa,

emphasises that a novice should always consult the respective breed society before establishing a herd. This is to establish how many herds of that breed are registered countrywide and whether the area has active breeders available from whom the novice can learn about the breed and its place in the market. “Find out about auctions for this breed in your area as well as which cattle are available,” he advises. “Attend auctions and educate yourself to get a feel for the breed. If, for example, there’s one

BELOW: A bull’s progeny inherits only around 50% of his genetics. A cattleman can decide what his herd needs and use EBVs to breed specific traits into the herd. PHOTOS: GERHARD UYS

breeder in the Highveld and another in KZN but none in between, ask why.” Hennie explains that a breed society’s website contains most relevant information.

‘TALK TO THE BREED SOCIETY’S TECHNICAL ADVISORS’

“Regularly updated details such as sex, pedigree and EBVs are available online. But I like personal contact. Talk to the breed society’s technical advisors.” Flaf adds that training courses are available for

prospective breeders and Simmentaler SA stud members are entitled to one annual visit from a Simmentaler technical advisor to inspect the stud and give technical advice.

Hennie is a proponent of artificial insemination (AI). “It’s the most affordable route to top genetics for a beginner. Outstanding bull genetics are available to all breeders. You can invest in bulls later,” he says.

BreedPlan and EBVs

Developed in Australia, BreedPlan is a regularly updated herd registration and genetic evaluation system that predicts breeding outcomes using estimated breeding values (EBVs).

Most breeds have their own breed-specific BreedPlan values – one can compare EBVs only within a specific breed.

An EBV is a genetic merit value for any trait that may be valuable

in breeding selection. A 100% correct trait prediction may not be possible, but a very close estimate can be made based on data from the parentage of a specific animal.

EBVs are expressed as the variance between a specific animal’s genetics and its data, with a base established for a specific breed.

Simmentaler SA has deemed certain EBVs

more important than others. They are:

- Calving ease direct (CED): the ability of an animal’s calves to be born without assistance from 24-month-old heifers;
- Calving ease maternal (CEM): a prediction of how easy the bull’s daughters will calve – the higher the value, the better;
- Birth weight (BW) (kg): estimates of genetic differences

in calf birth weight (moderate EBVs are more favourable);

- Live weight (LW) (kg) at 200, 400 and 600 days respectively (higher EBVs more favourable);
- Mature cow weight (MCW) (kg): estimate of genetic differences in cow weight at five years (lower or moderate EBVs are generally better for reducing herd maintenance cost);
- Milk (kg): milk

production and maternal ability expressed as 200-day weight of daughter calves;

- Days to calving: indicates female fertility. The number of days from the start of the breeding season until calving (lower EBVs more acceptable).
- Scrotal size (cm): Scrotal circumference (higher EBVs more favourable for fertility).

– Simmentaler SA

With AI, semen tapped from a bull is drawn into a straw.

“It can be used fresh or preserved for years, frozen in liquid nitrogen,” explains Hennie. “The straw is inserted into the cervix of the cow by hand. One straw is used per cow at a cost of between R70 and R100, and you should add the veterinary cost and the cost of storage in an AI flask.”

Most vets have their own flasks but charge for their services, travel costs and time.

“With AI, the oestrus cycles of cows can be synchronised so that they are all on heat within a few days and can be inseminated together. Another advantage is that venereal diseases cannot be transferred through AI,” he adds.

BUYING A FEMALE

There is a perception that buying a heifer is better than buying a cow. But according to Hennie, a new buyer will benefit more from a cow that has proven her fertility as an established breeder.

“A 3-in-1 cow (a cow certified pregnant with a suckling calf) is a good buy as you also get a weaner within two or

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FAST FACTS

three months and another calf within six to eight months,” he explains.

The dam of an animal is a good indication of how its progeny will develop and breed. It is almost a given that the sire will be of superior quality for stud breeding.

WHAT YOUR HERD NEEDS

Specific traits can be brought or bred into a herd as needed. Interpreting and using EBVs correctly, a cattle farmer can determine what the herd requires.

If it is more weight, the farmer can use a bull with EBVs indicating that its offspring will be heavier. A herd that needs more milk can benefit from EBVs for higher milk production.

A Simmentaler is a dual-purpose breed, producing both good milk and beef. When selecting

Estimated Breeding Values

Example of EBVs								
2014	CED	CEM	BW	200	400	600	MCW	Milk
EBV	+2,2	+1,5	+2,3	+15	+24	+26	+28	+9
ACC	55%	45%	65%	63%	59%	52%	51%	60%
BREED	0,3	0,9	1,5	15	23	28	30	5

In the above example, the EBVs for a specific animal are compared with the breed average. For example, the specific animal’s 200-day weight is 15kg above the average for that breed. Only half of these

genetic values are passed onto an animal from its sire. The percentage above the average is also stated. Most breed averages were set in the 1990s and a specific breed society may provide breed

averages higher than those from the 1990s. From these averages, a cattle farmer can make informed decisions on what a herd needs and determine whether a specific bull is the correct choice.



ABOVE: A Simmentaler bull should not be an ‘elephant’ – medium-sized bulls are preferred. It must have the ability to walk or mount a cow. It should also be balanced in the front- and hindquarters with good body length.

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← for EBVs, a breeder can choose a bull that can add any characteristic lacking in the herd.

A cattleman's ability to optimally manage a herd in a specific environment is important in selection. The Simmentaler, as any other breed, needs appropriate care and good nutrition.

Flaf and Hennie recommend that before buying animals at an auction, a prospective buyer does his homework. Hennie prefers buying from a breeder with an established herd who can provide the animal's history and confirm that it is free of venereal or other disease that can affect reproduction.

"No breeder will refuse should a client want to inspect his herd," he says. "Also, visiting a breeder is beneficial – you gain knowledge and can decide if you want that specific breed."

"Ask to see the entire herd as it grazes, not just the fattened cattle in a kraal the breeder may show you. Also, buy from a breeder in your area as animals from another climate may take time to adapt."

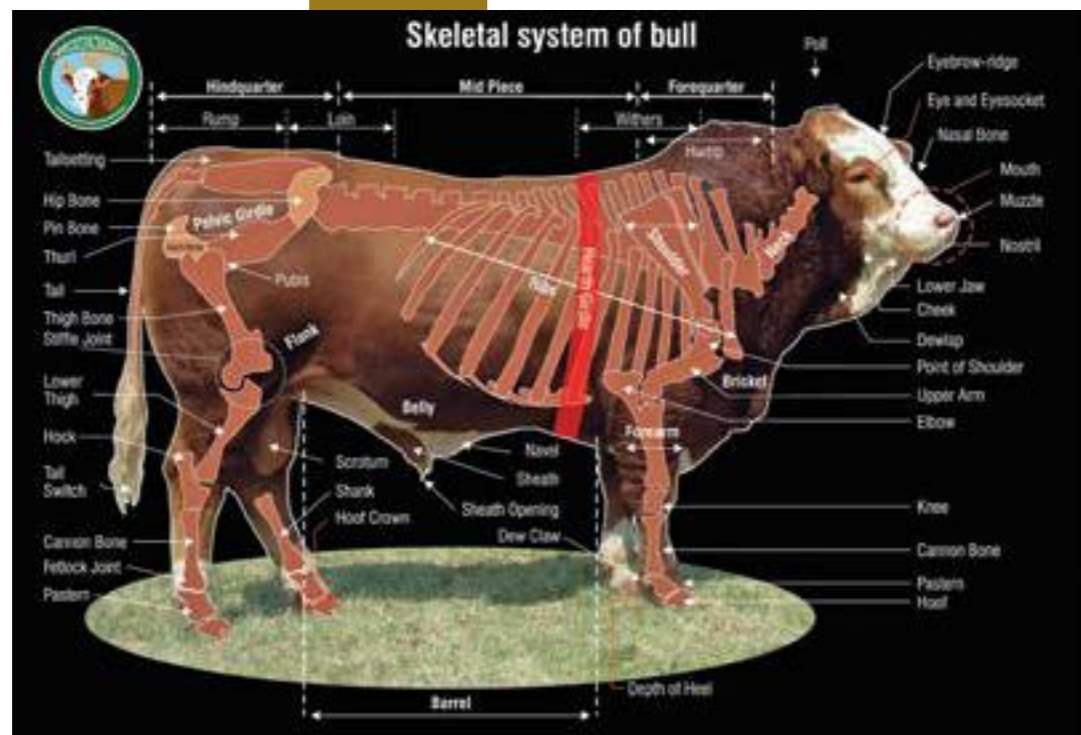
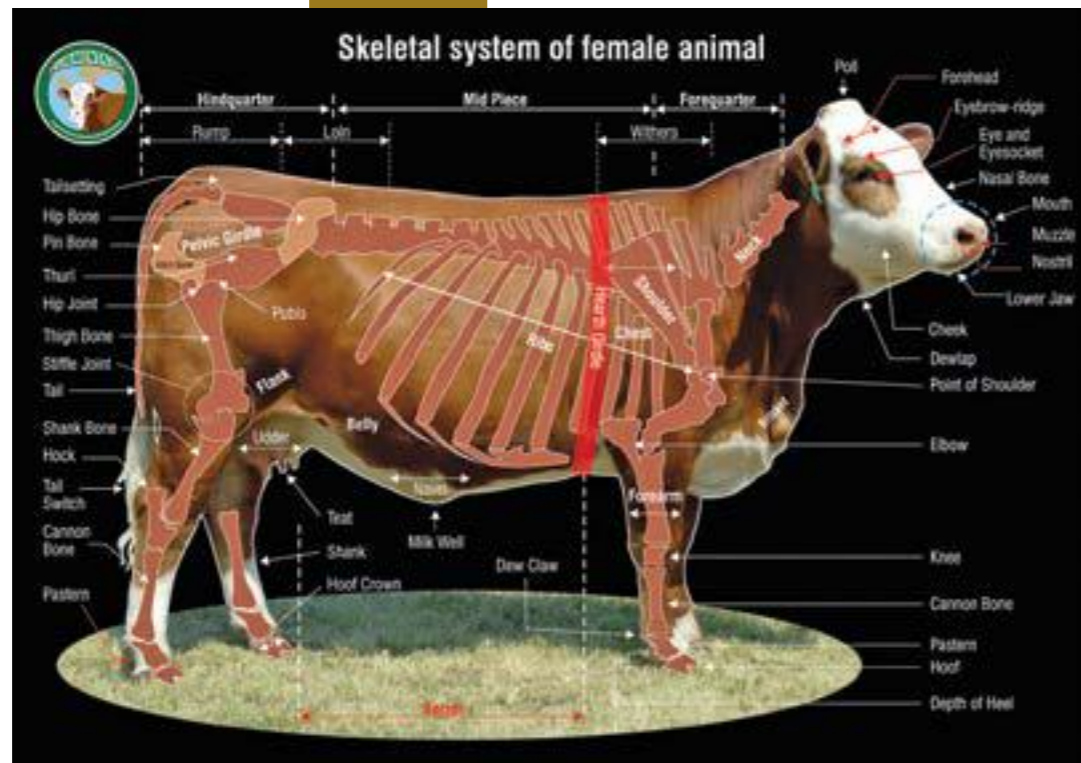
WHAT TO LOOK FOR IN A BULL

When selecting a bull, it is crucial to do research into its EBVs. According to Flaf, you should expect to pay twice as much for a bull as for a cow.

"A R100 000 bull comes only once in a lifetime," he explains. "A buyer of such an animal will have to sell his sons for at least R25 000 to R35 000 each."

Flaf adds that the breeding herd ratio should be 35 to 40 cows to one bull.

"The progeny of a herd inherits 50% of the bull's genes. In some cases, AI may be more profitable as a farmer can inseminate



ILLUSTRATIONS COURTESY OF SIMMENTALER SA

more than 100 cows with the same money he would have spent on a bull that costs R25 000 to R35 000," he says.

The physical structure of a bull is very important. The ideal bull is balanced in the front- and

hindquarters, with good body length and legs for walking. It must have the ability to mount a cow, should not be too heavy, but also carry enough meat.

"With the Simmentaler, we don't want an elephant," Hennie says.

"A medium-sized bull is better, but this depends on what a herd requires. If it needs more meat, a heavier bull may be the better option. There is no perfect animal – it is a never-ending selection process."

Determining a bull's value

Buying a bull is the most important investment a cattleman will make in his herd. He must evaluate a bull on the same basis as investing money – as return on his investment.

1. The more live calves a bull produces, the lower the bull-cost-per-calf. To produce many calves, a cattleman must consider fertility or semen quality, serving ability or libido, structural correctness – feet, hocks, sheath, scrotum size and shape – and also look after the bull well to keep it in good working condition.

If the bull is functionally sound and settled in the environment, it will sire many calves and be a good return on the investment.

2. The bull must sire live calves. Large, heavy and coarse bulls normally sire big calves, the main cause of calving problems.

The bull's EBVs for calving ease, which must be high, and birth weight, which must be low, are the best predictors of

the ease with which his calves are born.

3. The next important criteria is to determine how a bull's progeny will perform and not how much heavier or impressive he is compared with other bulls on sale. If he has not yet sired progeny, the only way to do this is to study his 200-, 400- and 600-day EBVs. These values reflect the genetics that will be passed on to the progeny, as opposed to how much the bull has eaten.

4. The last aspect to consider in determining the real value of a bull is his long-term value, specifically how his daughters will perform as replacement heifers.

Not even the best cattle judge can see how much milk a bull's daughters will produce or how easily they will calve. This is why a wise bull buyer considers the milk, maternal calving ease and mature cow weight EBVs.

BE CAUTIOUS

A beginner should insist on a fertility certificate and is allowed to collect semen to verify it. He should also insist on a test to verify that a bull is trichomoniasis-free as this disease causes major problems. Most sellers automatically provide this.

"A bull has to be DNA-tested and its paternity confirmed with a certificate as proof," says Hennie.

"Essentially, you buy what is on paper. DNA and paternity confirmation is compulsory for all Simmentaler bulls born from January 2014 as guarantee to the buyer. This costs the breeder R115. Each registered herd must be tested

annually for venereal diseases and brucellosis."

MORE NEEDED THAN JUST THE ANIMAL

Beyond buying the animals, it is essential that feed flow be planned at least a year in advance. It is as important as disease control.

"This may sound like an obvious principle but one often sees a new breeder buying cattle and putting up fancy infrastructure without planning feed flow," Flaf says. "Anyone can fall into this trap. Those starting out often focus on buying stock and think that if they only have their animals, then they can farm."



ABOVE: Flaf Lauwrens, general manager of Simmentaler SA (left), and Hennie Viljoen, commercial and stud Simmentaler farmer near Parys in the Free State.

It is also important to encourage neighbours to test for disease at the same time, as some diseases can destroy an entire herd, says Hennie. Tests should be conducted before the breeding season.

PLAN FEED FLOW AT LEAST A YEAR IN ADVANCE

"Annual vaccinations and fertility tests fall into the same category. Some cattle farmers become lax, and a disease such as brucellosis is dangerous," he explains, adding that if an animal has an incurable disease, it must be culled.

"A beginner must work out a vaccination

programme with a vet for his herd and farm. The vaccination needs on one farm are not necessarily the same as on another."

Commercial cattle farmers can do well with the Simmentaler breed, says Flaf.

"A Simmentaler bull in a commercial terminal crossbreeding programme will add at least 30kg to the weaners," he explains. "At R20/kg, it's definitely an advantage. One can also retain the replacement heifer for beef production, knowing that there will be ample milk and fertility."

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