Middelburg
MPUMALANGA

Stud success with EMBRYO FLUSHING

Simmentaler stud breeder **Willie O' Brien** has proven that a top beef stud can be run successfully on a relatively small farm through artificial insemination and embryo flushing. All his cows are artificially inseminated with the best Simmentaler semen available in South Africa. He told **Annelie Coleman** that a stud can be built up in as little as five years by using advanced reproduction technology.

TOP: Veterinarian Dr Robert Tredwell from Brits prepares a recipient cow for AI. Willie and Siebert plan to increase the flushing programme's output to 50% of calves born. Nearly 80% of the Wensim calves are currently conceived through AI in a natural cycle.

BELOW: A cow that doesn't fall pregnant after the second AI attempt is on the list to be removed from the herd. Willie strives for an average ICP of no more than 400 days.

WILLIE O' BRIEN

"MY PARTNER SIEBERT Botha and I run a relatively small stud of 65 breeding cows," explains Willie O' Brien, who farms on about 200ha in Middleburg, Mpumalanga. "All my cows are artificially inseminated (AI) as it makes economic sense. For significantly less than the price of one stud bull, I have wide access to the top genetics available in South Africa.

"A top performing bull can cost R100 000 and more. AI gives us a variety of such bulls to select from, at a semen cost of R100/straw to R800/straw. We spend around R4 000 on semen annually, so AI is an economically viable option."

The Simmentaler/Simbra Cattle Breeders' Society Internet Solutions (Simmentaler web page) is a valuable tool for selecting bulls. The estimated breeding values (EBVs) of all registered Simmentalers in Southern Africa, including Botswana and Namibia, are contained in the programme's database. This lets Willie compare and select genetics.

For example, he prefers medium-frame bulls. The programme gives him access to all bulls meeting his needs. Growth potential is high on Willie's list of selection criteria, so he needs to know a bull's weight at birth, 200 days, 400 days and 600 days, to determine its progeny's growth potential.

The Wensim Simmentaler Stud buys semen directly from selected breeders, or from specialist genetics suppliers, such as Embryo Plus, Vriesit and Taurus.

Two AI bulls, Salerika Evan and Kykso Haped, feature very strongly in the Wensim herd. Two of the top cows in the herd, Toverberg Ragel AK 00 6 and Bezley Beth JM 97 50, are Kykso Haped's sisters. Another top performer, Wensim Willemien, is one of Kykso Haped's daughters.

LEFT: Most embryo recipients are Simmentaler- and Bonsmara-type cows. Because of the breed's exceptional fertility, Simmentalers excel as surrogate mothers.

RIGHT: Siebert Botha (left) and Willie O'Brien run a stud herd of 65 breeding cows.

FAR RIGHT: Brothers Jack and Smit Mashabane are the backbone of the Wensim Stud. They are both qualified in AI, are in charge of the animals selected for the showring, and are award-winning cattle handlers.

PHOTOS: ANNELIE COLEMAN

Other bulls used are Simlee Banjo, Leeupoort Brits, Taaibosspruit Pretoria and Wensim Benzer. These bulls are known for small calves at birth with excellent growth potential.

Hardy, no-fuss bulls

Willie markets 20 to 25 stud bulls every year. The top 10% are earmarked for the stud industry, while the rest are sold to commercial cattlemen. Because of the Wensim Stud's commitment to quality, up to 20% of the bulls are culled annually.

"I select ruthlessly for fertility and hardiness," says Willie. "We moved the herd from Lephalale to Middelburg in 2007, and the animals had to adapt from the hotter Bushveld sweetveld to the cold sourveld of the Highveld.

"I was astounded by the herd's adaptability, as the animals took this drastic change in their stride. My main aim is to provide hardy, no-fuss bulls that will add value to my clients' herds."

In 2007, Willie embarked on a programme to flush embryos from selected donor cows and transfer them to recipient cows. This proliferates the donors' valuable genetic material and dramatically increases her calf production.

"Our stud thrives because we increase the production of top-performing cows," he explains. "One such cow is Wensim Selest WEN 02 105, the Reserve Champion and Super Cow at Middelburg's 2010 Hartland Agricultural Show. She's a three-star cow and has produced 12 calves so far. With natural breeding, we would've had only six calves from her.

"Toverberg Ragel, dam of one of the Simmentaler/Simbra Breeders' Society's top-performing AI bulls, Salerika Eksellent, is also in our embryo flushing programme."

For the programme this year, Willie has identified four cows (Wensim Selest WEN 02 105, Wensim Wilmien WEN 07 29, Wensim Bontesa WEN 08 2 and Toverberg Ragel AK 00 6). Bezley Beth JM 79 50, one of the previous donor cows, was 10 when sold for R85 000. Her daughters Wensim Berdien WEN 04 15 and Wensim Bontesa WEN 08 2 are following in their dam's footsteps.

Bezley Beth is still a donor cow in her new herd. She was the Senior and Interbreed Champion at the Lichtenburg, Bela Bela and Lephalale shows in 2006, as well as a Baxter Udder Cow Class winner in the same year. Her son Wensim Benau was sold for R40 000 in 2007.

Wensim has taken over the sponsorship of the National Udder Cow Class, now known as the Wensim Udder Cow Class. In this class, cows are judged over a number of shows and the results are announced at the annual general meeting.

Increase embryo flushing to 80%

About 80% of the Wensim calves are currently conceived through AI in a natural cycle, but Willie plans to increase the flushing programme's output to 50% of calves born in the near future.

A typical cow in the embryo programme is flushed three to four times a year. After every third flushing, a cow goes through a normal cycle to ensure optimal fertility. DNA taken directly after birth from each calf certifies the identity of the sire. Most embryo recipients (surrogate mothers) are Simmentaler- and Bonsmara-type cows.

"We can't afford failure due to low fertility and acceptance. Because of the breed's exceptional fertility, Simmentalers excel as surrogate mothers," says Willie. "A cow that doesn't fall pregnant after the second AI attempt is on the list to be removed from the herd. I strive for an average ICP of no more than 400 days."

The Wensim Stud is run mainly on kikuyu pasture, which is prevalent on large areas of the Middelburg district. The farm is divided into six rotation camps of about 30ha each. The average annual rainfall is 800mm, but has been known to increase.

Diseases Willie has to contend with include gall sickness, seven-day stiff sickness and redwater, for which the cattle are treated on an *ad hoc* basis. Willie closely monitors tick infestation and selects animals with smooth coats to discourage ticks.

Watch out for pigmentation

Willie also selects carefully for pigmentation to prevent eye problems. "A lack of eye pigment is a serious problem. Without red pigment on the eyelid and around the eye, the animal could suffer from sun damage, fly and midge infestation, and cancer of the eye," he explains.

"In exceptional cases I'll allow such a cow or heifer into the stud, but never a bull. Some animals have white pigment around the eye, but have brown eyelids. This is still acceptable, but if the eyelid is white, the animal is culled."

Willie's ideal Simmentaler cow is a medium-framed, wedge-shaped animal, a good milker with a well-developed udder. Fertility is crucial and she must have good walking ability. "Combine this with proper depth, length and width, and you have a winner," he smiles.

- *Call Willie O' Brien on 082 859 7329.*

WHY READ IT?

- Artificial Insemination (AI) makes economic sense, as top genetic material pays.
- The Simmentaler/Simbra Breeders Society Internet Solutions (Simmentaler web page) is a valuable selection tool.