OVERSEAS DEVELOPMENTS

BREEDPLAN IN AFRICA

BREEDPLAN: An indispensable tool in Southern Africa

Mecki Schneider was voted “Namibian Master Farmer of the Year for 2000” and is a top three finalist for the 2005 Landbouweekblad/BREEDPLAN producer of the year competition. Mecki also serves on the Namibian Meat Board and various other industry bodies. Mecki and Brigette run a seedstock herd of over three hundred cows together with their commercial herd in Northern Namibia.

Long gone were the days when the only criteria in cattle selection were “beautiful” cattle and pedigrees. The intensive use of ratios (indices) for production values of the past decade has also ground to a halt. With the introduction of BREEDPLAN in Namibia a new technological “quantum leap” has been made and breeders who have been involved in weighing and taking measurements with reliable record keeping over longer periods are now rewarded.

With the easy, worldwide use of the Internet and electronic communication the use of “estimated breeding values” (EBVs) has become a “must” for any breeder in Namibia. In Namibia, a relatively small country on the African west-coast (north of South Africa), the impact of EBVs is strongly gaining momentum with commercial and communal cattle farmers. BREEDPLAN has opened up a whole new field of not only national but also international evaluations of the best genetics available for your particular environment.

For us at OKABRA Brahman, this is the real beauty of BREEDPLAN; Do not always target the so called trait leaders for every trait but consider your environment and make a weighted choice between birth, fertility, growth and carcass EBVs amongst other selection criteria. Every stud herd today should have a clear vision of its breeding objectives in terms of EBVs – create a window for each trait desirable for your environment and market. Assess the market requirements of your commercial (and in our case also the communal) farmer and be in direct touch with them – we run our Brahman stud cattle (except for the short period of mating) together with our commercial cattle, which still is our core business. In other words: keep close to the client base! The OKABRA Brahman Stud, from the northern part of Namibia, has established itself since its inception in 1987 as one of the leading and one of the largest Brahman studs in Southern Africa. The Schneider family has been in extensive cattle ranching as its core business since 1913 at Okamutombe near Grootfontein and thus brings along a successful history of sustainable beef production. We aim to be at the forefront of modern stud breeding techniques and market requirements: be it genetic trait evaluations, meat tenderness as well as other genetic markers, DNA recording, artificial insemination (and embryo-transfers) for new superior genetics and better national “linkages” (a very important aspect in stud breeding), annual ultra-sonic scanning of progeny to determine carcass quality, etc.

Of course the evaluation of structural soundness and the breeding of well adapted, hardy and productive cattle for extensive cattle breeding, while keeping our valuable export markets to South Africa and the European Union in mind, is of utmost importance! Our cattle have been meticulously selected and reared from the beginning with scientific selection methods and performance recording schemes. However, BREEDPLAN has opened up a whole new concept in beef cattle breeding.

Namibia is the most arid country in sub-Saharan Africa with a very erratic annual rainfall pattern ranging from 180 mm (in 2002/3) to about 500 mm. Further south even less rainfall can be expected. In such harsh, erratic and unfavorable climatic conditions, where grazing is the primary source of fodder (apart from a lick supplement) we may have a different approach to selecting with EBVs compared to many other breeders in other parts of the world. In our environment for example, high growth animals (cows) are not preferred, although our live weaner export market to South African feedlots would prefer this – but you have to keep your replacement heifers in mind. In fact, this to us is the crux of using EBV’s – they are made available and every producer can select for his or her specific preferences.

The first EBV I consider is for birth weight. In Namibia where most farmers do not monitor their cows during calving, birth weight is very important. My clients want easy calvers in this harsh environment and this is their most important selection trait. We have seen regular calving difficulties with some...
Farmers, because no attention was paid to birth weight EBVs. The second factor to consider is your clients’ production system as well as the production environment. High growth figures are not always best suited for an environment where grazing is the limiting factor as this will often reflect in the mature cow weight EBVs. Medium size cows can cope better in harsh environments extensive cattle-farming systems where they have to walk long distances between grazing and water points. If however farmers produce slaughter cattle (at 2 to 2½ years at marketing age) then an average or slightly above average EBV for growth is recommended – these are the cattle that have a better constitution and have a better carcass grading for the European export market resulting in profit. The EBVs for carcass traits like rib fat, rump fat, eye-muscle area, intra-muscular fat % and retail beef yield % are other traits that gain momentum for export market requirements of beef cuts as more data becomes available. The third factor to consider is the accuracy of the EBV. When buying or selling bulls I prefer accuracies above 70%. I then know that the bull has enough information so that preferred choices can be made.

Some of our clients are from the communal areas or from very harsh sandy environments. Their profitability lies in the reconception of the cow herd (low mature cow weight EBVs) under marginal grazing environments and not so much on growth EBVs.

As seedstock breeders we place our own emphasis on certain criteria:

1. We always have to keep our bull market in mind using the above 3 criteria. We have been selecting animals using the above criteria and over an 18-year period the results speak for themselves. Our herd has had a significant decrease in the average EBV for birth weight to below breed average and has had a gradual increase in growth EBVs over the same period to an above breed average value.

Our total herd is thus what is called a “curve bender herd”. Most of the recent stud bulls used extensively have low birth EBVs and good growth as well.

2. When we buy stud sires or introduce new semen, the number of progeny analyzed and the number of herds in which the bull was used is also of importance. If it is a young bull then its sire or dam must fulfill these criteria. Our herd linkage is one of the highest in the Southern African Brahman breed (and the highest for a Namibian stud). Important to us is the use of artificial insemination annually, even on a limited scale, with semen of bulls complying with the described requirements. This ensures that you are always optimally linked to the national database and thereby identify the best bulls. To plan for the long term we are importing semen from various countries of the best identified bulls to suit our needs – in this way ensuring a better international future data linkage.

3. For my particular bull market, namely, where my sale bulls have to produce crossbred cattle for beef production (RSA feedlots or European beef cuts), the milk EBV is of secondary importance. We are monitoring the herd average, which is slightly below breed average but of no concern due to the bull market we supply. However, we will keep an eye on this to ensure that clients are not penalized in years to come.

4. As a stud breeder it is of utmost importance that you monitor the genetic trend of all traits of your herd to see where you are heading and to select new genetic material accordingly. The breeding objectives as far as EBVs are concerned have to be evaluated annually to contribute positively to the economic and production enterprise of clients.

5. The next estimated breeding value we are in the process of assessing is days-to-calving. Historically we have put a lot of emphasis on fertility and thus expect good days to calving EBVs when the analysis is done later this year. In future we look forward to a net-feed-intake EBV as this is certainly of utmost importance in an environment where natural grazing is your limiting production factor. However, we still need to be convinced that a positive correlation exists between grass and grain fed beef.

In summary, producers in Southern Africa are increasingly using EBVs for selection of herd sires for all cattle breeds – apart from the production data in terms of growth EBVs seedstock breeders will increasingly have to pay more attention to carcass traits (and associated EBVs) and genetic markers identifying sought after properties of beef cuts!

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