





Ascendis Be Sure! Vaccines









- Anthrax
- Botulism
- Blackquarter









Reg. No. G4280 Act 36/1947 [NSO] V19/24.4.2/1443 Act 13/2003

- · Haemorrhagic enteritis
- Lamb dysentery
- Necrotic enteritis
- Pulpy kidney disease Malignant oedema
- Infectious necrotic hepatitis
- Tetanus
- Sudden death syndrome
- Black leg / blackquarter
- Bacillary haemoglobinuria









- Anthrax
- Botulism









- Reg. No. G4261 Act 36/1947 [NSO] V18/24.4.2/1435 Act 13/2003
- Blackleg Pulpy kidney
- Malignant oedema
- Tetanus
- Pneumonic & septicaemic pasteurellosis





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Foreword

By Nico Visser, President

With the launch of our first Bonsmara guide in 2018, we never thought that it would be so popular amongst stud and commercial breeders as well as the general public. It was not only an advertising medium but it also contained the history and system of the Bonsmara breed, supported by practical articles regarding general farming practices.

We, therefore, decided to relaunch the guide in 2021 with more updated information and other interesting topics. Since the start of 2020, the world had been faced with the COVID-19 pandemic and its effect on the world economy and the tragic death toll was unforeseen. It changed our thinking and will influence our mindset for many years to come and also for us in the cattle industry.

The well-known South African businessman Johan Rupert had the following to say regarding COVID-19 "This isn't just a pause — it's an entire reset of our economic system".

The lockdown to the contrary however had a positive effect on the environment like the following:

- Water channels of Venice in Italy is the clearest it has been in 60 years.
- The Himalaya mountain range in Asia and especially Mount Everest is visible in parts of India from more than 200 kilometers for the first time in 30 years.
- Air quality in Europe significantly improved and there was a significant decrease in air pollution levels in China since the lockdown started.

With this said, while this pandemic is an unwelcome lesson with tragic consequences, it has also taught us that agriculture and cattle just might not be the problem in striving for a greener planet, based on the following: There was 94.4 million head of cattle in the U.S. in 2020.

Even as people work from home and follow social distancing measures, something extraordinary has been happening. Greenhouse gas emissions are declining. Although we don't have daily measurements of CO2, there are indicators from other measurements that greenhouse gas emissions are declining.

The above information, as well as the positive news that most parts of Namibia had received above annual rainfall for this rainy season, had given us hope for the future. It is therefore important that we - as Bonsmara breeders - quickly embrace and adapt to the challenges and rules on public

gatherings, closed borders, travel and export restrictions etcetera.

In times like this, we must try to follow the example of Nkosi Johnson: "Do all you can, with what you have, in the time you have, in the place where you are!"

I hope this 2021 updated version of the Bonsmara guide will assist you in your day to day farming operation and that you, the reader, realize that quality and not quantity will enable you to brace the impact of COVID-19 on the cattle industry in the months and years to come.

Bonsmara greetings Nico Visser



Beef production in Namibia

Beef up your profits the Bonsmara way

As Namibian farmers, we are all finding our feet after one of the most severe droughts our decade has seen. Many lessons were learned during the drought and many farming practices were adjusted to accommodate climate change, which has become a shocking reality. Beef production in Namibia is at its all-time lowest as cattle numbers plummeted to the lowest in years. We, as Namibian farmers, need to learn from our mistakes and start to plan for the future as beef production in Namibia will never be the same. For us as farmers to absorb these external factors that we have no control over, we need to change our mind set. We need to aim at maximising our production per hectare to increase our profit per hectare.

One of the most important factors to increase profit per hectare is to reach a maintainable increase in stocking rate per hectare, thus optimally increasing herd size. Having a bigger herd with the same amount of land available seems to be impossible and just the contrary of what was just said regarding making changes to farming practices. However, this can be easily achieved by selecting for a smaller frame size animal in a herd.

Our national herd's cow weights have increased over the last 16 years with 23 kg. Meaning 250 cows that weighs 23 kg heavier needs 400 ha of farmland extra per annum. At the same time, the quality of rangeland in Namibia decreased. What this practically means is: To maintain the same number of cows, extra feed is needed from sources other than rangeland. Namibia is not a country where these extra sources of feed are available in abundance. If you need extra feed, you have to buy it or produce it, at a certain price. By adding this extra cost to your expenses yearly, you have a direct influence on your profit. Therefore, selecting for a smaller frame size animal means a bigger herd and higher profits.

The second most important factor to keep in mind to increase profit and production per hectare, is to start selecting for fertility and adaptability. These two traits go hand in hand and a non-adapted animal will not be the most fertile animal in your herd. The most adapted animals will always be the ones that can easily regain their condition after a drought and maintain their body condition, these animals are called EASY FLESHING animals.



Prof. Jan Bonsma putting into action his famous philosophy, "man must measure."

On Page 11 there is a more extensive article covering the importance of fertility, adaptability, and cow efficiency and how this all fits together like a jigsaw puzzle.

Taking all the above into consideration, we have to agree that farming is a highly specialized industry where we need to focus on the economical important factors when choosing a breed for your farming needs. A proper scientific study of different breeds needs to be conducted. You need to set some clear breeding goals for yourself. Decide what type of farming will suit your area and environment the best. Secondly, weigh the positives and negatives of different breeds against each other and decide which economically important traits of a specific breed will be helpful to make a positive contribution to the national herd and beef production as a whole. With this said, we would therefore like to introduce the Bonsmara as the all-rounder breed, which will fit into any production system in Namibia.

A little Bonsmara history

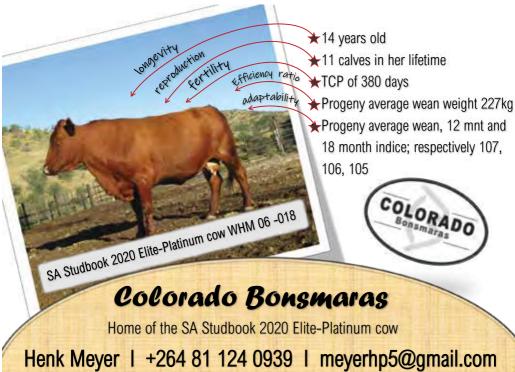
The development of the Bonsmara – from Mara, a small research station to international acclaim.

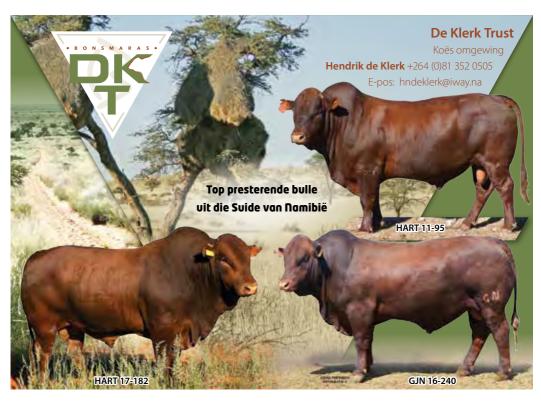
The Bonsmara was bred at the Mara and Messina Research stations between 1937 and 1963 by scientists under the watchful eye of Prof Jan Bonsma. The name Bonsmara was derived from Prof Bonsma's surname and Mara, where the first crossbreed calves were born. Prof Bonsma exercised crossbreeding experiments in about 20 commercial herds in different parts of South Africa, to finally establish the best performing crossbred beef breed, which consists of 5/8 Afrikaner and 3/8 Exotic Hereford/Shorthorn. The first Bonsmara bulls were made available to commercial breeders in the 1950's and soon the Bonsmara were widely spread across South Africa. In 1964 the Bonsmara Breeders Society of South Africa was formed by Mr Rex Ball and soon other African countries followed. Today the Bonsmara is a recognised breed in more than 15 countries in the world. Thanks to Prof Bonsma, the Bonsmara is the only beef breed in the world created through well-documented crossbreeding programmes with the aid of objectively recorded performance data.

The Bonsmara in Namibia

In 1970 the first Bonsmara cattle were brought into Namibia by Peter Becker. On 25 November 1976 the Bonsmara Club in Namibia, namely the "SWA Bonsmara Club" was established. The rest is history. Soon the SWA Bonsmara Club had 45 active registered breeders, and after 43 years of breeding, 11 of these breeders are still active. Today we are one of the leading cattle breeds in Namibia and called the Bonsmara Cattle Breeders Association of Namibia, with 30 active breeders as well as numerous commercial farmers all over the country.









Platinum Elite Cows

"Golden Oldies"

One of the founding principles of the Bonsmara breed is compulsory performance testing based on the well-known saying of Prof Jan Bonsma "Man must measure". We are mostly interested in measurements and performances of bulls because they are the star attractions on the farm or at auctions.

We easily forget that behind every bull is a bull mother. In the Bonsmara breed, breeders are fond of nicknames for old cows like "Royal family", 'Golden oldies", and "Old ladies" etc.

Adaptability, fertility, and longevity are characteristics you can easily apply to Bonsmara cows still producing offspring in Namibia and Southern Africa. To compare cows based on merit, SA Stud Book (registering authority of the Bonsmara breed) annually analyses the data of all living cows in the Bonsmara breed to elect that specific year's best-producing cows.

After a very stringent selection process (see criteria underneath), the cows that qualify are acknowledged at SA Studbook's annual award ceremony in Bloemfontein South Africa.

To qualify as a best-producing cow, she must fulfill the following requirements:

- The cow must be alive on the date of the evaluation process.
- The cow must belong to an active member of SA Studbook's Logix Beef program.
- The cow must have at least 5 recorded natural calving dates.
- The cow's age at first calving must be under 39 months (1187 days).
- The cow's intercalving period for all-natural births must be less than 415 days.
- The cow's last normal calving must be within 470 days of the date of evaluation.
- After the first weaned calf, only 2 calves are allowed without a weaning weight, excluding the calf on foot.
- All indices of weaned calves must be ≥90.
- · First acceptance cows cannot be evaluated.

Breeding value requirements:

- The newest breeding values will be used on the date of evaluation.
- Wean direct breeding value Indice must be ≥90.
- Wean maternal breeding value Indice must be ≥90.
- Birth direct breeding value Indice ≥80.
- Birth maternal breeding value ≥80.

In conjunction with the above requirements, awards are given in the following 3 categories:

Based on minimum calves with valid weaning weights:

Elite Gold: 7 calvesElite Silver: 6 calvesElite Bronze: 5 calves

To qualify as an Elite Platinum cow, the following additional criteria are then taken into account:

- The cow should have been classified as an Elite Gold cow.
- The cow should not be classified as an Elite-Platinum on a previous occasion.
- The cow's intercalving period for all-natural births must be less than 400 days.
- The cow is allowed to have only one calf older than 270 days without a weaning weight.

The following criteria will also be used to elect the cow from those qualifying:

- Cow selection value ≥100.
- The retention percentage of offspring taking into consideration sex and status.
- The percentage of calves performance tested with valid birth and weaning weights.
- The number of calves with valid weaning weights taking into consideration the cow's age.
- The days since last calving not more than 400 days.

Our aim as breeders must be to breed cows like these and to treat those we have as per definition on Google for a "grand damme", with the word "damme/woman" replaced by "cow":



"A cow who is socially prominent, respected, and experienced, especially one who is haughty and advanced in age. A cow who is accomplished, influential, and a senior figure in a particular field".

Over the last 8 years, the following cows were selected as Elite Platinum cows from all Bonsmara stud herds in Namibia and each of the owners may feel proud of their cow's achievement.



2013

Okozonduno Bonsmaras Junius Mungunda GRT 99-0125



2014

Emok Bonsmara Edward Hansen ERH 04-0023



2015

Hartebeestloop Bonsmara Joggie Briedenhann VBB 06-0115



2016

Hartebeestloop Bonsmara Joggie Briedenhann AEJ 06-0163



2017

Helku Bonsmara Heidi Oestlund HOB 06-0121



2018

Hartebeestloop Bonsmara Joggie Briedenhann VBB 07-0302



2019

Hartebeestloop Bonsmara Joggie Briedenhann NGO 03-0066



2020

Colorado Bonsmara Henk Meyer WHM 06-0018



2021

Emok Bonsmara Edward Hansen ERH 09-0034

All of these elite cows are products of careful selection and excellent farming practices and form the cornerstone of the female population of the Bonsmara breed in Namibia.

Behind every successful farmer is a high performance cow

The national calving average in Namibia is estimated at roughly 60% - 65%! A shockingly low average with the results directly affecting the bottom line of each and every cow/calf producer.

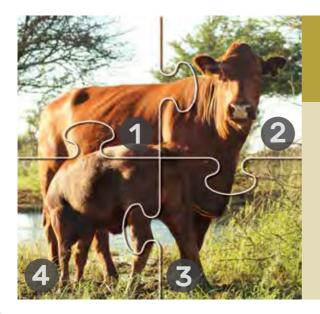
But the problem is not one that cannot be solved and all it will take is a deliberate decision to change the current status quo and follow some basic, yet effective means to ensure you return to profitability, and have fun doing it!

"Every cow is a challenge to me with regard to her 'living picture' - a jigsaw puzzle so to speak."

Prof. Jan Bonsma illustrated this in presentations done in the past and I will explain this in more detail later.

The Bonsmara system has at its very core the visual selection of all animals that conform to its selection criteria.

Together with BLUP-values, the visual inspection covers all economic traits necessary to qualify as breeding stock.



The 4 main characteristics that need to be selected for

- 1. Fertility
- 2. Adaptability
- Temperament/Disposition
- 4. Cow Efficiency

Fertility

Or reproduction is the ability of a cow to conceive and maintain pregnancy during her lifetime and is the greatest economic trait in any cow herd and it is of utmost importance that a cow exhibits her femininity i.e. she should at least look like a cow! Her hips and pelvis should be wide and deep with her pelvis dipped slightly downward. This will enable her to calve with ease. As the vulva is located below her anus, it is important that the anus is not sunken which may introduce fecal material, urine and air into the vagina. This phenomenon can lead to infections and/ or dystocia (abortions).

Moving down to her hindquarter it is recommended that the rump should be wide and long as cows with greater rump width tend to be more fertile, have good calving ability and are early maturing. A fertile cow should be able to rear a heavy weaner and needs adequate milk therefor her udder should be uniform with small teats and should be tucked neatly between the hind legs. There should be ample space for her udder and her udder should be tight as poor udder conformation reduces longevity.

Adaptability

The ideal cow should be able to adapt to her environment without supplementary attention. The Bonsmara cow is just this! Keep a keen eye on her coat as this will always be a good indicator as to her wellbeing. A cow should have seasonal hair growth with a smooth coat in summer and growth in winter. This winter growth influences her thermo-regulatory mechanisms protecting her from the cold and then shedding her coat during the hotter months. It is important that the cow drops in body condition score or BCS in winter, only to regain it in summer. This is always a good indicator of her ability to adapt to her new environment. A cow that has adapted to her environment is also a low-input cow – exactly what we need in all extensive farming operations.

Temperament/Disposition

This is a highly heritable trait and also one with dire financial implications. It has been proven that temperament affects fertility and growth – 2 very important economic factors. The Bonsmara cow is known to be docile and calm, resulting in excellent conception rates.

Cow Efficiency

The 3 major factors affecting cow efficiency in a herd are:

- Cow Size
- Milking Ability
- Reproduction

Cow Size

In an arid country like Namibia, with frequent and long droughts it is imperative that farmers select the correct cow frame size to fit our environment. For too long we thought that 'bigger is better', but all comes at an enormous cost i.e. maintenance.

The Bonsmara cow is a typical medium framed animal and probably the correct size for Namibia. With a typical 3 frame score size this animal can adapt to the harsh Kalahari, the mountainous Khomas Hochland, the dry North West and the Central Plateau.



Milking Ability

The Bonsmara cow is well adapted for our extensive farming conditions and should be able to provide enough milk for the calf to grow between 800g – 1kg per day.

This will enable an average calf of 35kg at birth to wean at 235kg at 205 days (7 months) of age.

Reproduction

A cow that is not efficient will certainly lack the ability to reproduce. Various studies have proven that an efficient cow that is adapted to her environment will calve each year. The reproductive performance of our cows are measured by means of

- Age First Calf (AFC)
- Inter Calving Period (ICP)
- Reproduction Index (RI)

As Bonsmara breeders we assess our cow herds continuously as we understand the importance of BCS (Body Condition Score) on the reproductive ability of the herd.

The BCS is a score given to an animal, normally ranging between 1-5 (1 being the lowest and 5 the highest) and is used to estimate energy reserves in the form of fat and muscle in the animal. BCS is an integral part of our assessment processes on the farm as it distinguishes different nutritional requirements in your cattle, thereby also affecting their reproductive ability.

Many farmers will remember that a cow that was not in condition during the drought did not even go in estrus and the primary reason for this was her low BCS caused by insufficient nutrition.

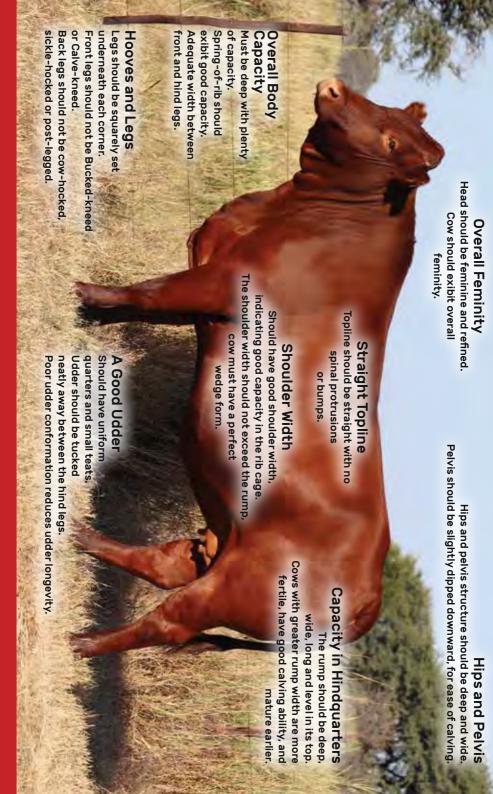
We also understand the multitude of factors influencing conception, calving ease, nutrition, the effect of a fixed breeding season on ICP and environmental factors and that is why the visual inspection or 'the living picture' will complete your puzzle.

Make a mind shift and select strictly for the following:

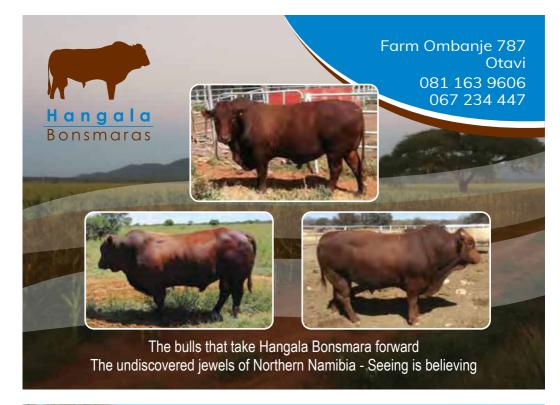
- Fertility
- Adaptability
- Temperament
- Efficiency

At Bonsmara Namibia we understand the challenges that we as farmers are facing and if you wish for a representative to help you with a selection on your farm, please contact us.





Selecting a functional and efficient cow





Wean weight

Fact and fiction

Over the last couple of years, due to the drought and relatively good weaner prices, more and more farmers resorted to a cow/calf production system. In a typical cow/calf production system the income is derived from the marketing of weaners with the income being based on weaner weight at the lowest possible input costs. There are various opinions given about the subject of an ideal weaner, with each breed trying to claim bragging rights to the top spot, with the only measure being an assumption based on the weight of the calf at weaning stage. Therefore, it is important to distinguish between fact and faction when it comes to wean weights.

To understand some common misunderstandings regarding wean weight, we need to accustom ourselves with a few facts.

What exactly does wean weight tell me about a farmer's herd or the breed that he breeds with? Wean weight only tells me something about a farmer's management and the environment that he farms in. Management being lick programs, vaccination programs, calving seasons, mating seasons, when and how his calves are born and managed, and when they are weaned. The environment being the specific area that a farm is in, the type of grass in your area and the rainfall in your area.

When taking the above in consideration one realises that we technically can't compare wean weights between different breeds or different herds. You only compare management and environment with each other, and this however is not genetically inherited.

The Bonsmara system is based on a corrected weaning period of 205 days or roughly 7 months. At weaning stage, the calf is weighed with the mother to determine the cow efficiency ratio. When comparing wean weights we need to realise we can only compare weights from animals from the same contemporary group. A contemporary group is a group of animals that does not differ in age more than 100 days, taken during the same period and on the same production unit. This information can then be used to determine breeding values. If your herd is a Bonsmara stud herd you are fortunate as our breeding values can be compared to breeders in comparative environments, with accurately documented data gathered over years.

It is a fact that to increase our profit in a cow/calf production system is to increase you wean weight with the lowest input costs. The most effective way to do this is by improving your management, thus effectively managing your environment. If the optimum management system for your environment is implemented on your farm and you still want to increase your wean weight there are a few economically important traits in your herd that you can start to select for, traits that is genetically hereditary.

A medium framed size cow herd is much less maintenance and much higher in production efficiency than a larger framed cow herd. By weighing your calves and cows at weaning you can easily determine the wean weight ratio of each cow.

Cows that have a lower wean weight ratio will have to be evaluated for their low milk production. Good quality weaners need mothers with sufficient milk production. Use well-adapted, performance tested, registered bulls in your herd. Purchase the best bull you can afford, make use of breeding values as a helpful tool to choose the best bull for your herd.

It is fiction to think that to produce a heavier weaner we need to farm with a bigger or heavier cow, a heavier cow means more food, longer inter-calving periods, and more maintenance.

A higher wean weight must not be your only focus, as that comes at a cost; the cost of losing focus on the total economically important factors of a production system.

It is a fact that genetically advanced wean weights are directly correlated with higher birth weights, larger framed animals, higher maintenance needs, and a whole chain of reactions that can be very costly if not managed properly. You need to make a mind shift to move from chasing a higher weaning mass to attaining a weaning mass determined by your environment to increase your profit before the calf leaves your farm gate.

The key in the wean weight business is a good balance between all the economically important traits in your herd. The Bonsmara is the only beef breed in the world created through well-documented crossbreeding programmes with the aid of objectively recorded performance data selecting for these economically important traits for decades already.

Good vs. Bad Debt

In Agriculture

Believe me when I say there is such a thing as good debt and bad debt in Agriculture. This is probably more important now, given the fact that we are in a recovery phase after many years of drought and tremendous hardship and challenges.

In this article I focus on the fundamental differences between the two and the benefits of good debt for your business. Good debt is generally described as debt which improves the productive value of your business resulting in increased wealth in the long term. In simple terms this means that you make more profit by taking up a loan and your financial position will improve over time in terms of the value of your assets (e.g. farm worth more).

Examples of good debt include:

- Acquisition of land. Do, however, take note that the purchase price should be realistic and should ensure economy of scale for your existing farming activities. The consideration should not only be that the land is adjacent to your farm or that it is land which once belonged to the family which you wish to restore to the family. It is not easy to regain your loss when you pay too much for land. This is not a new concept but has been with us for a long time and many financial articles have been written in this regard.
- Infrastructure such as dams, fencing, solar, de-bushing, electrification
 and even buildings. The aforementioned will increase your productivity,
 effectiveness and profitability. Think of undesirable animals that reduce
 your stock. De-bushing results in drastically increased carrying capacity.
 Solar saves power and ineffective provision of water distribution may
 have disastrous results.
- Centre pivot you use to plant lucerne or maize or anything else, either
 to generate another stream of income or to be used to round off your
 animals and to get them ready for the market faster, especially in difficult
 times such as the past few years. If you have sufficient underground
 water, it is of the utmost importance to use this precious asset sensibly
 and to the benefit of your business.
- Vehicles and implements you truly need. This is applicable when you
 want to start planting or when the existing vehicles are worse for the
 wear and unreliable. It is sometimes better to purchase a new vehicle
 that has a warranty than to incur costs for maintenance and repairs.
- · Sound genetics which enhance the quality of your stock.
- Training/education for your children, which include good schools and tertiary institutions to ensure your children's future. This is a futurebased investment which is of cardinal importance.

Bad debt on the other hand is debt which, among others, finances your lifestyle and adds no value to your wealth (e.g. farm property) over the years. It is also debt you cannot really afford and where there are no prospects that the new asset will pay for itself in the future. On the contrary, this bad debt weakens your financial position and could even put you in a financial difficulty and make you worse off.

Examples of bad debt are:

- Vehicles you really do not need. Again have a look at my example under good debt and see the other side. You also do not have to buy the largest and most expensive vehicle, but make sure it can serve your needs.
- Overseas holidays which you cannot really afford, or any other purchases financed on a credit card.
- "Bargains" you cannot afford to miss but, which have to be financed. Let me give you an example here which we have all encountered some time or another. This will sound very familiar to some of you. You go to an auction out of curiosity and suddenly there is this implement or vehicle or parcel of attractive animals and nobody is interested, except you of course. You ask yourself how one man can be so lucky. The next day, or even on the same day, you phone your bank manager and tell him/her as diplomatically possible about the payment you have done. You ask him/her to arrange finance for this unplanned bargain you encountered. Remember: something is only a bargain if you really need it.
- Mortgages for a flat or a small house in a complex. Everybody does it and
 makes bags of money and the agent tells you it is a once in a lifetime
 opportunity. Do your homework and ensure it really is worth your while.



Clearly, there is a place for good and responsible debt for your business. The most important of these include:

- A new loan could place your business on the road to new growth. Instead
 of trying to grow and extend your business systematically, use a bank
 loan to achieve it faster. We refer to this as the leverage effect.
- With a sensible loan you can reduce your risks. Here I refer to center pivots, electrification, and water supply. Have a look at my detailed comments under sound loans.

In conclusion, ask yourself the following before considering engaging in debt.

Can I afford the debt comfortably?

This means two things: Will I make more profit by taking up the loan than the cost involved in the loan (interest and capital)? Would I be able to deal with interest rate changes?

Is it really necessary?

Be objective and realistic when answering this question.

Will the loan improve my financial position in the long term?

Will my farm be worth more if I take up the loan?

Do I understand the risks?

Do I understand the risks of the debt and the terms and conditions involved in the loan?

A final message to each and every one of our farmers:

Make sure your farm can afford the good debt.

In other words, the income generated by your farm must be sufficient to cover all expenses, including any other obligations you have towards the bank, the co-operative and other creditors. Good debt is paid from a strong cash flow from your business. You, as the owner, are paid last and not the other way around.





E Freyer & Sons

Bonsmara - what else?



Top vrugbare, veldaangepaste bulle is beskikbaar direk vanaf die plaas.

Top fertile, veldt-adapted bulls available directly from the farm.

Heiko Freyer Tel: 061 235 587 • Cell: 081 127 1602 • hbfreyer@afol.com.na



Streicher & Hella Coetzee +264 62 51 8079 omantumba@iway.na Streicher 081 129 8387





Top quality genetics available at the following Annual Auctions:







The 7 Basic Principles

Precision Farming

1. Gather information

Start by gaining as much information on different cattle breeds in Namibia as possible. How are they farmed with and what production systems are they effective in?

Make informed decisions when you decide to purchase animals. Know the advantages and the drawbacks of the breed you decided on, set yourself some clear goals as to where you would like to see yourself in five years. Will this specific breed help you to reach those goals, if not, what can be done to change that?

2. Apply basic animal husbandry

- · De-horn your calves;
- · Castrate your males properly;
- · Ear tag them properly with an identification number;
- · Brand them correctly;
- · Match the mothers with the calves;
- · Write down the calves birth date;
- · Weigh your calves at different intervals;
- Get yourself a proper program to manage all this data with.

3. Evaluate your cows and weaner calves.

By doing a cow/calve evaluation every year before calves are sold as weaners you will be able to identify cows that produce below or above average calves every year, not only on weight but on phenotype too.

4. Buy the best bull you can afford

Don't settle for less. Buying the best you can afford is the easiest way to improve the genetics in your herd.

5. Get a proper vaccination program

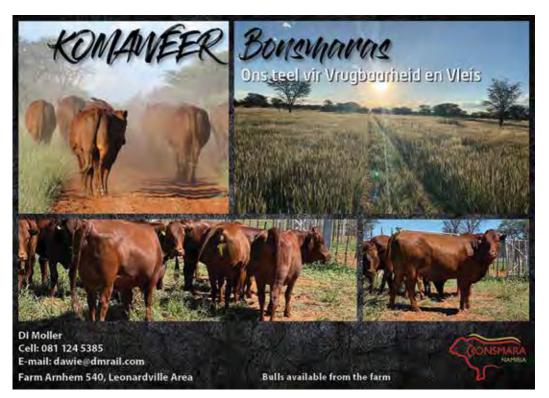
A sick cow with internal parasites cannot produce a proper calve. She needs to be healthy and in ideal condition to look after her calve properly.

6. Get a proper basic lick program

You will waste your money if you buy the wrong lick at the wrong time.

7. Manage your finances

Draw up a budget, plan your cash flow and keep proper records of your finances. No financial institution will lend money to you if you cannot supply them with proper figures for your farming activities.





Ear Notches

Reading and marking your animals

Ear notching is an important part of effective farming. But why? Here are our top 3 pointers:

Easy identification

Ear notches help identifying animals at a distance.

Keeping track

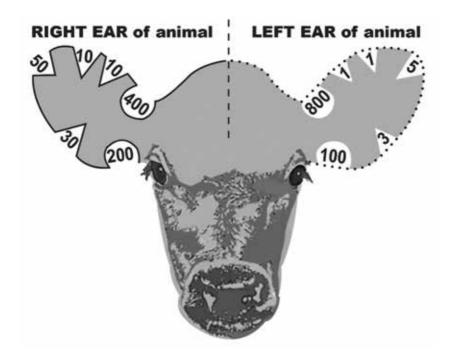
Number all animals yearly, starting with 001 and brand the year on the upper thigh of the animal (e.g. 21).

Sooner rather than later

Mark as soon as possible after birth with a proper ear tag as well as do ear notches as preventative measure in case of a missing tag.

Do it right

The correct method is using a combination of rounded and pointy marks for ear notches. Many farmers only use pointy notches.



Calf 1 Born 124th during 2020

- He will get 2 clips at the top of the right ear. 1 clip at the bottom on the inside of the left ear and one clip at the top and bottom of the left ear. (10+10+100+1+3=124)
- He will be branded a 20 on the thigh for his birth year.

Calf 2 Born 106th during 2020

- He will get 1 clip at the top
 of the left ear. 1 clip at the
 end of the left ear and 1 on
 the inside of the left ear.
 (1+5+100 = 106)
- · He will be branded a 20 on the thigh for his birth year.



The Bonsmara System

Ensuring that you buy quality bulls

The benefits of buying a registered Bonsmara bull are endless, and it comes with a certain kind of assurance and peace of mind.

These words that are most often associated with Bonsmara adverts and are advocated by Bonsmara breeders, - but do we really know why it is important to buy a registered Bonsmara bull? The true meaning and the importance of this statement will never make sense if you do not realize that buying a bull is one of the most important decisions you will ever make in your farming career. The right bull can forever change your herd, but the wrong bull can ruin your farming career.

Taking the rich history and research of the Bonsmara into consideration, we know that it was fundamental, dating back to 1964, that cattle must be visually evaluated and selected on their economic characteristics as well as structural correctness and functional efficiency. The current Bonsmara system was therefore put in place in 1964. This brings me to the subject of "How will this Bonsmara system ensure that farmers buy quality bulls that will give them peace of mind?"

The Foundation of the Bonsmara system rests on these 4 important pillars:

A. Genetic Material: Buying from a large, registered gene pool.

A large genetic pool of Bonsmara type animals exists in Namibia. A farmer can either buy registered female animals from fellow breeders or can present animals that have Bonsmara traits for a basic inspection managed by Bonsmara inspectors. These female animals can then enter the bottom of the ladder as "basic" cows and their progeny can progress through Appendix A and B to SP (Stud Book proper) by mating them only with Stud Book Proper (SP) bulls. This open bottom-of-the-ladder system ensures that the gene pool is constantly enriched with new bloodlines and traits, which reduces the risk of inbreeding and strengthen certain traits. All registered Bonsmara bulls are bred from this large gene pool of registered females. All registered Bonsmara bulls sold must be Appendix B or SP.

B. Machinery: Performance testing and proper inspections.

All animals from a registered Bonsmara breeder must be put up for inspection by a Senior and Junior inspector of the society. Animals will be visually appraised for structural correctness, functional efficiency together with their official performance data. Female animals who do not meet the criteria below will be cancelled as registered animals and can only be sold as commercial animals. All rejected bulls are slaughtered. The selected bulls' paternity must be verified by DNA and only after passing minimum

breed standards as well as visual inspection, a bull can be branded with the trademark Bonsmara (3 on his right shoulder.

Bonsmara Namibia Minimum Breeding Standards for female animals are the following:

- A heifer must calve before 39 months.
- Any calving interval must not exceed 730 days.
- A cow must rear at least 2 of any 3 calves up to weaning age.
- A cow may not wean more than 2 calves with an index below 90 (Meaning more than 10% less than the herd average)

For inspection at least 2 indices (Wean and 12- or 18 months) are compulsory and must be above 90. Contemporary groups must be presented together.

Bonsmara Namibia Minimum Breeding Standards for male animals require the following:

- Post-Wean Growth Test (Phase B)
 Three indices (wean, 12- and 18 months) above 90
- Post-Wean Growth Test (Phases C & D)
 Three indices (wean, ADG and Kleiber) above 90
- Measuring scrotum circumferences at 18 months is compulsory and corrected scrotum circumferences must be on the inspection sheet.

C. Marketing and information

Bonsmara cattle may not compete in show events, but can be exhibited. Before a Bonsmara auction, animals are again screened by Bonsmara inspectors and performance data endorsed for the auction to be hosted under the Auspices of the Breeders Association. Farmer's days and promotional days are hosted all over Namibia for the fellow farmer to gain knowledge. Bonsmara Namibia is also continually active on all the social media platforms as well as in printed media, constantly sharing knowledge with fellow farmers. We believe in providing the everyday farmer with the knowledge to make proper educated decisions.

D. Manpower, integrity, and perseverance

The implementation of the Bonsmara system rests primarily with the breeders and is based on their dedication and integrity. We are proud of the fact that all our members breed to their best ability, well-adapted cattle that meet the demands of commercial farmers as well as feedlots. Bonsmara animals are also readily available all over Namibia.

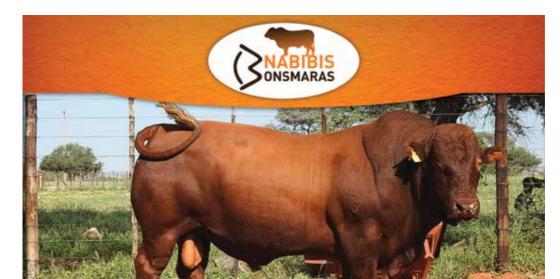
Taking the above selection system into consideration, it is easily estimated that about 20% of all bulls are rejected by the Bonsmara system alone. Evaluated and selected on their economic characteristics as well as functional efficiency ensuring that only the best genetics enters end in the market.

But there is even more than only buying into the system. The Bonsmara Cattle Breeders Association of Namibia realized that we still needed to offer more for the commercial farmer to add value to the National herd. There are not many guarantees in life, but the Bonsmara Association of Namibia gives that extra peace of mind and assurance when you buy that special bull with your hard-earned savings. For that specific reason, apart from the proven Bonsmara system, a bull must also tick all the boxes below to be sold as a registered Bonsmara bull.



A Registered Bonsmara bull

- Will have a pedigree dating back to more than 50 years.
- Will be either a Stud Book Proper bull (SP) or a 2nd generation bull (B). No rejected bulls may be sold and must be culled.
- Will have an official certified catalogue on an auction and will be auctioned off under the auspices of the Bonsmara Breeders Association of Namibia.
- Must have a dam that meets all minimum breeding standards.
- Must go through the Bonsmara system, and thus will be performance tested "to measure all is to know all".
- Must go through a selection process before been registered and a screening process before an auction.
- Must have its paternity confirmed by means of DNA.
- Must have a bull breeding soundness certificate certified by a veterinary surgeon that a bull is fertile, healthy, and free of any sickness and venereal diseases.
- Must have a (3 brand on his right shoulder.



Top genetika, uitstekende aanpasbaarheid

Juan Coleman 063 28 3372 / Whatsapp 081 271 4323





The Bonsmara Cow



Lower Jaw / Underkaak Cheek / Wang

0

겂

3

8

8

20

4

42

19

- Mouth / Bek
- Muzzle / Neusspieël Nostril / Neusgat
- Nasal bone / Neusbeen
- Eyebrow-ridge / Oogbank Eye and eye socket / Oog en oogkas
- Poll / Horing kroon Forehead / Voorkop
- Ear / Oor
- Forequarters / Voorlyf Hump / Skof

44

48

53

22 32 2

45

49

50 ত্য

52

23

- Chine / Kambeen
- Mid Piece / Middelstuk
- Hindquarters / Agterlyf Loin / Lende
- Hip Bone / Heupbeen Rump / Kruis
- Tailsetting / Stertwortel
- Pin Bone / Sitbeen
- Tail switch / Stertkwas Tail / Stert

40

36

N

Thigh / Dy

- Hock / Hak Cannon bone / Pypbeen
- Hoof Crown / Hoefkroon

38

39

- Shank / Skeen
- Navel / Naelvel Udder / Uier
- Vulva Barrel / Romp

- Hoof / Hoef Dew Claw/ Byklou
- Pastern / Kootgewrig
- Knee / Knie Cannon Bone / Pypbeen
- Chest / Borskas Brisket / Borsstuk

- 40 Dewlap / Keelvel 41 Neck / Nek
- 42 Top of Shoulder / Bopunt van skouer
- Point of Shoulder / Skouerknop Shoulder / Blad
- 46 Elbow / Elmboog
- Forearm / voorarm
- 47 Heart Girth / Borsomvang
- Ribs / Ribbes

Flank / Lies

27

26

25

- 52 5 Lower Thigh / Tweede dy Stifle Joint / Knie
- lortoise muscle / Skilpadspier Thurl / Draaibeen

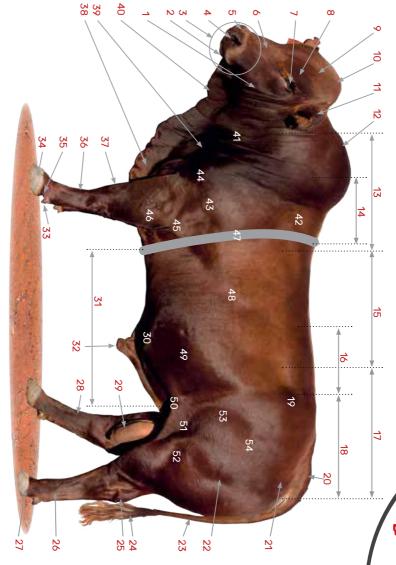
Belly / Buik



The Bonsmara Bul







- 40 Dewlap / Keelvel

Hoot / Hoet

- 41 Neck / Nek
- Top of Shoulder / Bopunt van skouer

Chest / Borskas Knee / Knie

Brisket / Borsstuk Cannon Bone / Pypbeen Pastern / Kootgewrig

- Shoulder / Blad Point of Shoulder / Skouerknop
- 45 Elbow / Elmboog
- 46 Forearm / voorarm47 Heart Girth / Borsomvang
- Ribs / Ribbes Belly / Buik
- 50 Flank / Lies
 51 Stifle Joint / Knie
 52 Lower Thigh / Tweede dy
- Tortoise muscle / Skilpadspier
- Thurl / Draaibeen

Bonsmaras in a crossbreeding system

Crossbreeding is important all over the world, and it is playing an ever-more prominent role in beef production. Several studies have incontrovertibly proved that a large improvement in beef-cattle production is possible with a thoroughly planned crossbreeding programme. Unfortunately, the studies also found that most crossbreeding programmes are not well planned and that hybridisation rather than crossbreeding is achieved.

The benefit of crossbreeding stems from two processes: complementarity and heterosis (hybrid vigour).

Complementarity

This is the way in which two or more traits combine – or complement each other – to breed better offspring. In simple terms: it is how the good traits (genes) of an animal/breed supplement the weak traits (genes) of another animal/breed in order to produce better offspring with these specific genes. The adaptability, hardiness and fertility of indigenous breeds (Bos indicus) combined with the good growth traits and production ability of the foreign breeds (Bos taurus) are good examples of the function of complementarity to explain the benefit of crossbreeding.

The above mentioned refers to complementarity between different breeds. The Bonsmara offers the benefit of existing complementarity within the breed. It is the only breed for which performance testing has been compulsory since its origin. The comprehensive breeding values of all traits, of 2 096 314 Bonsmaras are currently on record at SA Studbook. This is an enormously large database that offers a wide variety of options to a farmer who wants to implement complementarity in his crossbreeding programme. For every weak trait present in the farmer's herd, there will be a Bonsmara with a corresponding strong trait which, through the process of complementarity, will breed offspring that perform far better with regard to that trait.

There are approximately 9,000 registered Bonsmaras in Namibia, and breeders are spread across the country. Any farmer who is practicing crossbreeding surely has to consider the Bonsmara with large numbers and the largest database.

Heterosis (hybrid vigour)

This is the genetic benefit afforded to the offspring by the mixing of the genes of the parents. Heterosis is expressed in a percentage improvement of a specific trait. For example: Bonsmara bulls with an average weaning weight of 250 kg are mated with cows of any breed with an average weaning weight of 220 kg. The average weaning weight of the parents is (250 + 220)/2 = 235 kg. However, the first generation of calves (the F1 generation)

has an average weaning weight of 242 kg. The percentage heterosis is $(242-235)/235 \times 100 = 3\%$ (0,0297). The larger the genetic diversity in die genetic composition of the breeds being used to crossbreed, the stronger the effect of hybrid vigour in the offspring. In this way, there will be a larger hybrid-vigour effect if for example, you mate a Bonsmara with a Simmentaler than if you mate a Simmentaler with a Limousin. Table 1 shows the differences in performance between pure breeds, crossbreeding and the use of composite breeds (Bonsmara) for weaning weight/cow exposed to bull.

Crossbreeding system	Heterozygosity of breed (relative to F1) (%)	Increase in weaning weight per cow (%)
Pure breed	0	0
Two-way breed rotation	66.7	15.5
Three-way breed rotation	85.7	20.0
Four-way breed rotation	93.9	21.7
Two-way breed composite (5/8 A, 3/8 B)	46.9	10.9
Three-way breed composite (3/8 A, 3/8 B, 1/4 C)	65.6	15.3
Four-way breed composite (3/8 A, 3/8 B, 1/8 C, 1/8 D)	68.8	16

Table 1: Heterozygosity and the estimated increase in the weight of weaners per cow in various crossbreeding systems

(A = sire of calf)

(B, C and D = dam of calf's composite "cross" genetics)

Source: Gregory and Cundiff, 1982 in Scholtz, M.M., Beef Breeding in South Africa, Second Edition (2010): p. 27



In general, heterosis will bring the greatest improvement in traits with the lowest heritability, such as reproduction and longevity. Very little or no heterosis is found in highly heritable traits, such as carcass traits. Table 2 shows the heritability and the heterosis effect of selected traits.

Heterosis is not genetic in nature and will therefore go to waste unless management practices like three-way crossbreeding are continually used to preserve it as much as possible.

Traits	Heritability	Level of heterosis
Carcass traits	High	Low
Skeletal measurements		(0 to 5%)
Adult weight		
Growth rate	Medium	Medium
Birth weight		(0 to 10%)
Weaning weight		
Year-old weight		
Milk production		
Maternal capacity	Low	High
Reproduction		(10 to 30%)
Health		
Longevity of cow		
Overall productivity of cow		

Table 2: Summary of heritable traits and level of heterosis

Source: Kress, D.D. and MacNeil, M.D. Crossbreeding Beef Cattle for Western Range Environments, Second Edition (1999). WCC-1 Publ. TB 99-1. Samuel Roberts Noble Foundation, Ardmore. OK.

It is important for farmers to know how many kilograms are yielded per hectare, as this is one of the best ways to measures economically efficient farming. Table 3 shows the kilogram weaner (weaner yield) delivered per hectare according to the breed of the dam. The 210-day weaning weight, reproduction rate, calf deaths, weaning weight/cow-weight ratio and carrying capacity (10 ha/LSU) are combined in a formula to determine the weaning weight produced per hectare. Only Bonsmara bulls were used on the cows. The work was completed by Els on the Vaalhartz research station.

Weaner weaning weight (kg) / ha	Breed of dam
15.1 – 16.0	A
16.1 - 17.0	C, H, B, ABA, HHA, CBA
17.1 – 18.0	S, HBO, CCA
18.1 – 19.0	BA, SA, CBO, BBA, CSA, BSA
19.1 – 20.0	ACA, AHA, ASA, CHA, HCA
20.1 - 22.0	BO, BBO, CA, SBO, SSA, HA, BHA, BHA, HAS, SCA, SHA
>22.0	BCA, SBA

Table 3: Weaner yield in kg/ha according to breed of the dam

A = Afrikaner - Bos indicus

B = Brahman - Bos indicus

BO = Bonsmara - composite breed

C = Charolais - Bos taurus (continental European breed)

H = Hereford - Bos taurus (British breed)

S = Simmentaler - Bos taurus (continental European breed)

The first letter indicates the sire of the cow crossbreed and will therefore constitute 50% of the composition.

Examples of three-way cow crossbreeds:

BCA = 50% Brahman (sire of the cow)

The other half of the cow is 25% Charolais and 25% Afrikaner SBA = 50% (sire of cow), the remaining half is 25% Brahman and 25% Afrikaner.

As expected, the three-way cow crossbreed generally performed better. It is interesting to note that there are four half-crossbred cows, namely Brahman x Bonsmara, Simmentaler x Bonsmara, Charolais x Afrikaner and Hereford x Afrikaner that also did very well. Many Namibian farmers are still of the opinion that you have to use either Brahman or Bonsmara for the maternal line and do not realise the value of crossing the two breeds. The heterosis effect is very prominent if the Brahman Zebu type is mated with the Bonsmara, which is composed of Bos indicus (5/8 Afrikaner) and 3/8 Bos taurus / British breeds (3/16 Hereford and 3/16 Shorthorn). In effect, you actually get a four-way composite crossbreed.

The pure-bred Bonsmara has the same production performance as the three-way crossbreeds (20,1 – 22,0 kg/ha weaning weight). This shows the value of composite breeds (Bonsmara) in crossbreeding and even pure breeding, such as Bonsmara bull with Bonsmara cow. As discussed above, the Bonsmara is a three-way composite breed.

The above can be explained by the Bonsmara's upgrading breeding system that is open at the bottom. This means that the offspring of any purebred or any crossbred cow composed of any breeds whatsoever can be bred to a registered Bonsmara through a process of structured upwards breeding. One can think of the enormous influence this has on the heterosis effect of Bonsmaras. The list of breeds below has been used by Namibian Bonsmara breeders in a structured programme to broaden the genetic diversity of the Bonsmara (this list is not exhaustive):

- 1. Afrikaner Bos indicus
- 2. Simmentaler Bos taurus (continental European breed)
- 3. Red Poll Bos taurus (British breed)
- 4. Shorthorn Bos taurus (British breed)
- 5. Sussex Bos taurus (British breed)
- 6. Red Angus Bos taurus (British breed)
- 7. Hereford Bos taurus (British breed)
- 8. Holsteiner dairy breed
- 9. Germany Red (continental European breed)
- 10. Braunvieh Bos taurus (continental European breed)
- 11. Tuli-Sanga
- 12. Senepol Red Poll x N'Dama

Bonsmaras can be used in any of the crossbreeding systems with the greatest peace of mind and with good success rates. Composite races that consist of two, three and four breeds retain 50%, 67% and 75% respectively of the maximum heterosis of calf and dam, and improves the production of the herd with 12%, 15% and 17% respectively. If you already have Brahman x Simmentaler cows for example, the three-way-breed composite Bonsmara bull can be considered to get maximum improvement in production.



The biggest concern of any crossbreeding programme is the carefully considered management of and planning for, the different breeds that should be used. The biggest benefit that Bonsmara breed brings to a crossbreeding programme is the ease with which the system can be managed. With Bonsmaras, you automatically bring a three-way-breed composite animal into the crossbreeding programme.

Generally, the level of heterosis is higher in adverse environmental conditions (extensive areas with limited feeding) than in good environmental conditions (mostly intensive conditions with more than enough feeding). Furthermore, the percentage Bos indicus in crossbreeding programmes will vary depending on the climate and feeding conditions. For the more adverse tropical climate of Namibia, it is suggested that up to 70% Bos indicus should be built into the crossbreeding programme to obtain maximum gains. Bonsmaras with its 5/8 Bos indicus ratio are ideal for a crossbreeding programme in the more arid areas.

Any farmer doing crossbreeding should know that the performance and the production ability of a crossbred animal is a function of the genetic merits of the parents.

Heterosis (hybrid vigour) can never compensate for genetically weak parents. Crossbreeding and bull selection should go hand in hand if the best results are to be obtained. The bull and cow of the best quality always deliver the best quality crossbred offspring.

There is ample scientific proof that Bonsmaras can play an exceptional role in a well-planned crossbreeding programme.

Vaccinations in beef cattle

Dr JG Nel (Vet) - Ascendis Animal Health

Implementing a proper herd health management program is the key to prevent production losses in a beef production system and to optimize profits. One of the key components of a herd health management program is a well planned and executed vaccination program.

Most disease outbreaks in cattle usually happen suddenly. There is usually no time for treatment or treatment is usually ineffective to prevent animals from dying during a disease outbreak. The focus should therefore be on preventing diseases through vaccination.

Basic principles of immunization or vaccination

The immune system can be considered the defense force of the body which protects it against infectious disease-causing organisms like bacteria and viruses. The immune system uses various mechanisms to protect the body. Vaccination or immunization is a way to "train" the bodies' immune system to target and eliminate specific infectious organisms which may cause disease, and thereby protecting the body against the disease.

It is important to state that no vaccine will ensure 100% immunity and there are multiple factors that may play a role in the development of a protective immune response in individual animals. The livestock producer should therefore do his/her utmost best to follow the guidelines of the vaccine, i.e. keeping the cold chain, using clean needles, ensuring that the correct dosage is administered and ensuring that animals are healthy and in a good condition at the time of vaccination.

Basic principles of vaccines

Vaccines can be divided into different groups based on the composition of the antigens in the vaccine:

- Viral vaccines can be divided into live attenuated (weakened) viral and in-activated viral vaccines.
- Bacterial vaccines can be divided into in-activated toxoid vaccines, inactivated bacterin (bacterial cells) vaccines or combination in-activated toxoid and bacterin vaccines and live bacterial vaccines.
- Combination vaccines Combination viral bacterial vaccines are also available.

Most vaccines contain adjuvants, which are molecules that are identified as "different / strange" by the body's immune system to which the body reacts in order to stimulate the immune system to ensure adequate protective

immunity. This is especially important for in-activated vaccines.

Live vaccines (viral & bacterial) generally stimulate a strong immune reaction with the result that some animals may show signs of lethargy for a day or two. In some instances, milk production may decline for a day or two, due to this immune reaction.

Unless otherwise stated, live vaccines (especially live viral vaccines) should not be used in pregnant animals. Live vaccines generally stimulate longer lasting immunity.

In-activated vaccines generally stimulate immunity of shorter duration. After the initial vaccination (so called primary vaccination) a "booster" vaccination 4-6 weeks is required. Thereafter annual "booster" vaccinations are important to maintain immunity. These booster vaccinations are therefore important to ensure adequate long-lasting immunity.

Diseases and the principles of vaccination

The following diseases are known to result in morbidity and mortality and subsequent production losses in beef cattle herds and should be considered in a vaccination program. The basic principles to vaccinate against these diseases are also discussed.

Anthrax

Afrikaans: Miltsiekte

Is a bacterial disease caused by Bacillus anthracis, which may cause sudden high mortalities in unvaccinated herds. Because this is a zoonotic disease (i.e. a disease that can affect humans), it is law in most countries to annually vaccinate against this disease. Anthrax vaccine is a live bacterial vaccine. Cattle receive their first vaccination at the age of 4-6 months and then an annual booster vaccination thereafter.

Botulism

Afrikaans: Lamsiekte

Is a bacterial disease caused by the toxin of Clostridium botulinum. This disease may result in morbidities and mortalities in unvaccinated herds. A risk factor is when chicken litter is fed to cattle and when cattle have phosphate deficiencies which cause them to chew on bones contaminated with the toxin of this bacteria. Botulism vaccine is an in-activated toxoid vaccine. Cattle should receive their first vaccination between 4-6 months of age with a booster vaccination 4-6 weeks later and then applied booster vaccinations thereafter.



Clostridial myositis or Black quarter

Afrikaans: Sponssiekte

Is a bacterial disease caused predominantly by Clostridium chauvoei, which may cause sudden high mortalities in unvaccinated herds. Other bacteria, like Clostridium sordelli, Clostridium septicum and Clostridium novyi, may in some instances also cause a similar disease. Clostridium chauvoei vaccine is a bacterin vaccine, while Cl. sordelli, Cl. septicum and Cl. novyi vaccines are generally toxoid vaccines. Cattle should receive their first vaccination between 4–6 months of age with a booster vaccination 4–6 weeks later and then annual booster vaccinations thereafter.

Bacterial and viral respiratory disease

Afrikaans Respiratoriese siekte of longontsteking

Respiratory disease may be caused by either bacteria, Mannheimia haemolytica, Pasteurella multocida, Histophilus somni, Mycoplasma bovis, or viruses such as Infectious Bovine Rhinotracheitis virus (IBR), Para-influenza 3 virus (PI3), Bovine Syncytial virus (BSV) and Bovine Viral Diarrhoea virus (BVDV). There are various viral (live or in-activated) vaccines available. The bacterial vaccines are generally inactivated bacterin or leukotoxin vaccines. Cattle should receive their first vaccination between 4-6 months of age with a booster vaccination 4-6 weeks later and then annual booster vaccinations thereafter. Vaccines containing live viral components are generally not used in pregnant animals. The timing to administer these vaccines are usually after calving and before breeding.



Reproductive diseases

Afrikaans: Geslagsiektes

Brucellosis also known as Contagious abortion

Afrikaans: Besmetlike misgeboorte

Is a bacterial disease caused by Brucella abortus. It is of utmost importance to vaccinate against this disease since severe production losses may result due to this disease. Infected cows/heifers usually abort during the last trimester and the infected placenta is a source of infection to other cows in the herd. It is important to ensure that new animals that are purchased and introduced into the herd originate from a herd that is certified negative in order to prevent introduction of positive animals that will contaminate the herd. There are two vaccines currently available to vaccinate against brucellosis namely S19 and RB51. Both vaccines are live attenuated bacterial vaccines. Heifers between the age of 4-7 months should be vaccinated once with S19 vaccine. Heifers older than 7 months should not be vaccinated with S19 vaccine since it may result in false positive results when the herd is tested for brucellosis. RB51 vaccine can be used to vaccinate heifers between 4-10 months of age and again between 12 and 16 months of age. Non-pregnant cows may also be vaccinated. Annual booster vaccinations can be given if necessary. RB51 should not be used to vaccinate pregnant animals.

Trichomoniasis and Campylobacteriosis

Afrikaans: Trichomoniase, Campylobakteriose

Protozoal (Tritrichomonas oetus) and bacterial diseases (Capmpylobacter fetus) that infects the penile sheath of bulls. When an infected bull mates with a cow or heifer the uterus of the cow or heifer becomes infected which creates an unfavorable environment for embryonic development and subsequent embryonic losses. The importance of testing bulls before the breeding season to ensure that they are not infected cannot be overemphasized. The vaccine against Trichomoniasis is an inactivated vaccine containing cultures of T. foetus. Cows and heifers should receive a primary vaccination and then a booster vaccination 2-4 weeks later. An annual booster vaccination may be administered thereafter. The Campylobacter fetus vaccine is an in-activated bacterial vaccine. One vaccination 30-60 days before the breeding season is advised to prevent Campylobacterosis in cattle. Thereafter annual booster vaccinations are recommended 30-60 days before breeding. Vaccination of bulls with the Campylobacter vaccine is usually curative for Campylobacteriosis.



Important vector / insect borne viral diseases

Lumpy skin disease

Afrikaans: Knopvelsiekte

Is a viral disease, transmitted by biting insects that may result in high morbidity and subsequent production losses and usually low mortality. The available vaccine is a live attenuated viral vaccine. Calves should receive their first vaccination at 6 months of age. Thereafter animals should be vaccinated annually during the late winter – early spring period (August – September).

Three-day-stiff- sickness or Bovine ephemeral fever

Afrikaans: Drie-dae-stywe-siekte

Is a viral disease transmitted by insects (mosquitoes) that may result is high morbidity and low mortality and subsequent production losses. The available vaccine is a live attenuated viral vaccine. Calves should receive their first vaccination at 6 months of age. Thereafter animals should be vaccinated annually during the late winter – early spring period (August – September).

Rift Valley Fever

Afrikaans: Slenkdalkoors

A viral disease (and is also a very important zoonotic disease) transmitted by mosquitoes which may result in high morbidity and mortalities as well as abortions in unvaccinated herds. It is generally a bigger concern in small stock. There are both live and in-activated vaccines available. In Namibia this vaccine should only be administered when it is advised by our local veterinarians, usually in an outbreak. It is a regulated vaccine.

Tick borne disease

Afrikaans: Bosluisoordraagbare siektes

Tick borne diseases like red water, anaplasmosis and heartwater are transmitted by certain ticks and may result in mortalities and production losses. In Namibia anaplasmosis is a common cause for morbidities and mortalities in cattle. So called "blood vaccines" are available to vaccinate animals if necessary. In regions where these diseases cause problems a vaccination strategy should be planned with the assistance of the local veterinarian. It is however advised to implement a proper dip program against ticks together with your local veterinarian to assist in curbing the outbreak of these diseases in your herd.

In conclusion, there are many diseases that affect cattle which may result in morbidities and mortalities when a disease outbreak occurs. Therefore, the focus should be on planning and implementing a vaccination protocol with the assistance of your local veterinarian, based on the disease prevalence in your region. These vaccinations should be considered as an insurance policy to limit financial losses in your beef cattle production system.







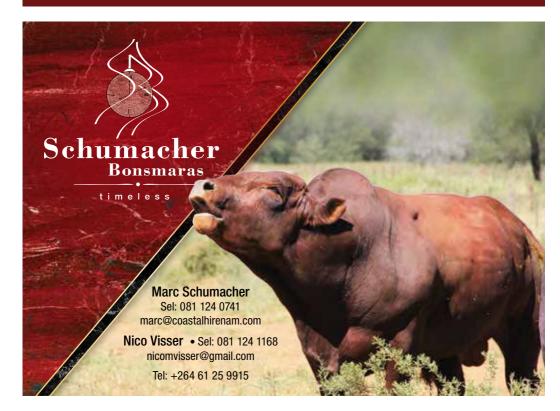


Vetumbuavi Mungunda

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Vaccination in beef cattle

Vaccines	Time	Quantity	Administration	Animals
Supavax or Triosure	May-June	2ml	Subcutaneous	All from 6 months
Rabies	May-June	1ml	Subcutaneous	All from 6 months
Lumpy Skin Disease	September-October	2ml	Subcutaneous	All from 6 months
Three days Stiff sickness	September-October	2ml	Subcutaneous	All from 6 months
Brucella S19 (RB51)	4-8 months of age	2ml	Subcutaneous	Heifers only
Campylobacter (Vibrin, Vibrio)	4-6 weeks before breeding	2ml cows 4ml bulls Subcutaneous	Subcutaneous	Heifers, cows, bulls

Deworming options	Time	Quantity	Administration	Animals
Dectomax, Ivermectin	October+April	1ml/50kg BW	Subcutaneous	All from 2 months
Ecomectin, Cydectin	October+April	1ml/50kg BW	Subcutaneous	All from 2 months
Panacur, other drenches	October+April	1ml/10kg	Oral	All from 2 months

External parasites options	Time	Quantity	Administration Animals	Animals
Delete all	Every 1-3mths according to tick load	1ml/10kg	Pour on	All from 2 months
Redline, deadline	Every 1-3mths according to tick load	1ml/10kg	Pour on	All from 2 months
Supona spray, tick grease	As needed (scrotum, sheath, teats)	local	Spray	Ν

Supplements and testing

Vitamins	Time	Animals
Vítamin A, E, D (AD3E, vitadex)	Every 3 months in dry season, 2ml Intramuscular (calves 1ml)	All
	4-6 weeks before breeding season, 4-6 weeks before calving, 1ml/50kg S/C	Cows
Mineral + trace element (Complex + A&E cattle)	Weaning, 1ml/50kg S/C	Calves
	3 times yearly, 1ml/50kg S/C	Bulls

Herd fertility tests	Time	Animals
Pregnancy testing	+/- 4 weeks before the breeding season	Cows
Bull fertility testing+sheath washing	Bull fertility testing+sheath washing +/- 4 weeks before the breeding season	Bulls

Guidelines for sick animals

+20ml Metabolic (or Vit B Complex) for 3 days. To be injected with disposable syringes and needles. Check rectal temperature: If over 39 degrees, animal is pale-yellow on mucous membranes Immediately give 1ml/10kg Terramycin LA Intra-muscular. To be repeated after 3 days For wounds and abscesses, Depomycin at 2.5-5ml/100kg injected daily for 3-5 days. Snakebite: Dexa/Colvasone 5ml IM once+20 ml of Depomycin IM for 3-5 days Cleaning and draining is however the most important.





Dr. J.B.A. Heusquin

Proper supplementation

The role it plays in Bonsmara farming

The role of supplementation to optimize the utilization of dry season veldt for beef production (commercial and stud) in Namibia with special reference to urea (NPN) inclusion.



Namibia has evident seasonal rainfall with the highest rainfall mainly between November and April. Nutritional value and the content of natural grazing correspond directly with the growth pattern of the grass. Protein may vary between 8-11 % on a dry matter basis (DM) in early growing stages to as low as 2% in the late dry season.

It is therefore important to note that the most significant limitation to beef production, conception, fertility, and growth is the poor performance of unsupplemented cattle on veld in the country's dry season.

In the early years of commercial beef and stud production/breeding efforts to overcome the problem of poor performance on dry season grazing were mainly concentrated on the substitution of grazing rather than supplementing the grazing (sour-and mixed-veld). Substitution as an approach is still too expensive and unreliable, especially for commercial farming, but might be used with good management in stud breeding programs or high value herds.

For the conditions in Namibia we will mainly concentrate on the amplification of the influence of energy and protein (role of NPN protein such as urea or ammonium sulphate).

The effect of low nutrient content of dry season veld or grass is mostly aggravated by the lower intake thereof by ruminants, mainly due to slow and lower digestion by protein deficient rumen micro-organisms.

The most important and notable effect of supplementation lies in several important key success factors and is subject to:

- It must be a balanced and well formulated supplement program and not a "blanket" approach but rather a strategic approach defined by a number of important parameters. The "blanket" approach of supplementation is still one of the most important contributors to low calving percentages (65-75%).
- Strategic supplementation of different herds to reach set goals and performance targets. Substandard supplementation and uneconomical feeding will affect conception and body conditioning (condition score must not be less than 3 on a scale of 1-5).
- Cattle in production (heifers and cows) should only be allowed to proportionally lose body mass in the dry season to their gain in the summer or rain season with enough and good quality veld. Try to maintain a body score condition of at least 3.
- Consultants and/or advisors responsible for formulation must consider the different seasonal and physiological stages involved. Energy, protein and mineral supplementation as well as vitamins all play important roles in strategic supplementation.
- Take into consideration that mature and immature cattle differ in their response to and requirements for nutrients in supplements. Therefore, each group/class must be fed or supplemented according to their specific requirements and responses as well as performance targets.

Urea (NPN) and dietary protein (oilcakes) in feed/supplements for cattle on dry grazing/dry season

As said, the low nutrient content of dry season veld is aggravated by lower intake, mainly due to slow and lower digestion by protein deficient microorganisms. In addition, the levels of crude protein are too low to support the maintenance of body mass, resulting in increased low conception and low calving percentages.

It is mainly for these reasons that it became common practice to feed protein-rich supplements, including feed grade urea and non-protein nitrogenous products such as feed grade ammonium sulphate that can replace a significant proportion of dietary protein (vegetable proteins such as oilcakes).

The reason for using a combination of dietary proteins together with urea (NPN) is widely known and there is also a good and clear understanding of the mechanism by which this is possible. However, there is still much speculation and uncertainty about the levels and/or combinations thereof. Some highly essential natural proteins escape rumen proteolysis as 'bypass' protein. High quality vegetable proteins are important in supplements despite the capacity of ruminant micro-organisms for protein synthesis.

Inclusion of urea or other NPN sources on a diet of poor quality/dry veld definitely increase and multiply microbial activity, rate of fermentation as well as the rate of passage of ingesta through the digestive track which will increase the intake of roughage as well as the energy status of animals. With enhanced dry matter (DM) intake of more than 2%of bodyweight, dry veld under certain conditions can provide most of the energy requirements for maintenance but only about 55-65% of the protein. The difference needs to be supplemented.

Optimum supplementation in Namibia for dry veld conditions is mainly subject to the inclusion of a suitable and effective combination of rumen degradable protein to maximise intake and undegradable protein for the level of performance required.

Because of low unit cost of urea and ammonium sulphate and the high cost and limited availability of vegetable proteins, urea is widely used to replace vegetable or plant proteins. It is very important not to use too much urea in supplements to save costs. The offset of reduced performance might be higher.

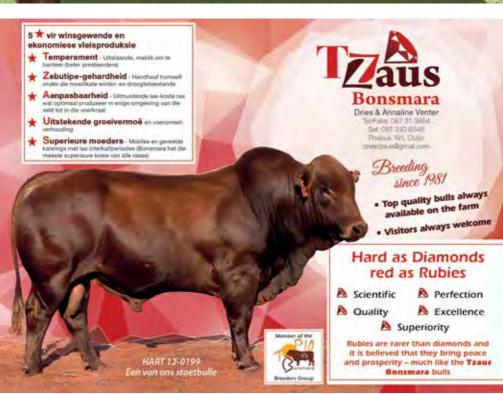
It is important not to exceed the maximum intake or safe levels of urea at all times. Progressive replacement of natural protein by urea is sometimes done at levels too high for effective utilization and might lead to decline in performance. The levels of inclusion are still a highly debatable topic, however a 50-60% substitution of natural protein in supplements is widely accepted and yields good results in dry season.















Beef up your herd

The Bonsmara way!

With the many challenges in agriculture these days, no farm can afford animals that are not adding value to the operation. Therefore, the breed choice for a farmer is a decision that needs to be taken only after serious consideration. All breeds lay claim to a certain number of characteristics, but only few can show the results. In the end what matters most is that the breed we choose must be a diverse breed that can add value to your herd.

The Bonsmara had its origin from an intensive crossbreeding program. The main focus was to develop a breed that was adaptable to Southern-Africa's diverse environment. After more than 50 years of being a registered breed, the Bonsmara can lay claim to the most important of characteristics.

Adaptability to flourish on the veld

Originally bred for the drier areas of Southern-Africa, the Bonsmara has proven itself not only in these areas but are adapted and found all over the world today. All over Namibia the Bonsmara flourish in extensive conditions and can be marketed from the veld with only a mineral lick in summer and protein-maintenance lick in winter.

Prosperous in any farming system

Whether it is a typical cow-calf production system, an ox-system, a replacement heifer breeding system, as a pure bred or as a crossbreed, the Bonsmara prosper in each of these systems and add value to each of these systems.



Minimum breeding values

Strict minimum breeding standards for reproduction, milk production, growth, functional efficiency, and structural soundness are applied by the breeders.

Temperament

The Bonsmara is generally good tempered, and breeders strictly select against bad temperament. This is a highly heritable trait.

Breeding soundness certificate

All Bonsmara Bulls sold must be accompanied by a bull breeding soundness certificate certified by a veterinary surgeon, to ensure a bull is fertile and free of venereal diseases.

Serving ability of a Bonsmara bull

Masculinity and libido play a major role in the serving ability of a bull and therefore it is part of the strict selection criteria for a bull. A fertile Bonsmara bull can easily serve 35-40 cows in a mating season of 3 months.

Heat resistance

The Bonsmara has a coat enriched with blood vessels and sweat glands. Their coat is shorter and smoother, their skin is thicker, and their sinus cavities are bigger, making them more adaptable and heat resistant.

Longevity

A Bonsmara cow can easily reproduce under extensive conditions up to the age of 12 – 14 years and bulls can still serve up to the age of 10 years and older.



Natural parasite resistance

The Afrikaner influence ensured that the Bonsmara are more tick resistant, due to its shorter coat, thicker and blood-vessel enriched skin and sebum that is secreted by the sebaceous glands.

Fertility

On average Bonsmara cows are highly fertile and this trait is being advanced and maintained through strict selection standards.

Medium framed breed

An average Bonsmara cow in Namibia weighs between 450kg to 500kg which classifies the Bonsmara into a medium framed breed, making it ideal for the Namibian environment.





Mothering abilities

The Bonsmara cow is very popular amongst commercial breeders for the pure fact that they have exceptional mothering abilities, have good milk production, look well after their calves and are easy to handle.

Good milk production

A Bonsmara cow is energy efficient and has a good feed conversion ratio. She is therefore able to convert poor pastures and even inadequate pastures into good milk for her calf while maintaining her own body condition.

Cow efficiency ratio

On average a Bonsmara cow will produce a healthy calf every year on the veld and wean a calf of 7 months at 45% of her own body mass.

Ease of calving

Bonsmara cows are known for their ease of calving, thus meaning low mortality rate due to not being able to calve on its own. Certain speciality bulls are also selected to be used on heifers, ensuring ease of calving.



16 Early puberty

A Bonsmara is a medium framed breed that reaches puberty at the early age of 12 -18 months. In Namibia the average age for first calf is 32 months.

17 Excellent conception

Bonsmara cows usually stays in good condition throughout the calf rearing season and therefore come into season quickly after calving, thus having a superb re-conception record.

18 Good quality weaners

Time and time again Bonsmara weaners win the national weaner competitions throughout the country and they achieve higher prices than most other breeds.

Early market readiness

Bonsmara weaners adapt easily in the feedlot and are ready to be slaughtered after just 90 days. In the ideal feedlot circumstances, the Bonsmara grows up to 2kg /day.

Feed conversion ratio

Feed efficiency is one of the most important factors in the profitability of a feedlot. According to studies done by the LNR, the Bonsmara have some of the best feed conversion ratios and are seen as the most economic breed in the feedlot.

21 Oxen from the veld

In extensive circumstances a Bonsmara farmer can easily slaughter his oxen from the veld as AB-, B2- or B3-grades. Scientific research has proven that the Bonsmara carcass easily obtains a slaughter percentage of 55% to 60%.

Bonsmara heifers

Currently there is a greater demand for Bonsmara heifers than can be supplied in the market. Bonsmara heifers are extremely popular and one can create a stable market for yourself by adding value and selling off good quality heifers ready for the bull, or certified pregnant heifers.

Integrity and trust

We are proud to say our breeders truly strive to go about with absolute integrity and are trustworthy; these are some of the most valuable assets any farmer can possess.

24 Bonsmara information days and training

Once or twice a year a breed promotion day or information day are being hosted by the Bonsmara Association of Namibia. These days are full of informative information that is aimed at the betterment of the breed. The Bonsmara Association of Namibia has also committed itself to provide training for young and upcoming farmers and students. Since 2013 we hosted two training days for students each year.

25 Mentorship

Breeders have committed themselves to be mentors for young and upcoming farmers and are committed to create a stable future for the farming environment.

With these 25 unique traits one can beef up any herd.

Make the right choice, choose wisely.



Bonsmara Breeders

Find a breeder near you

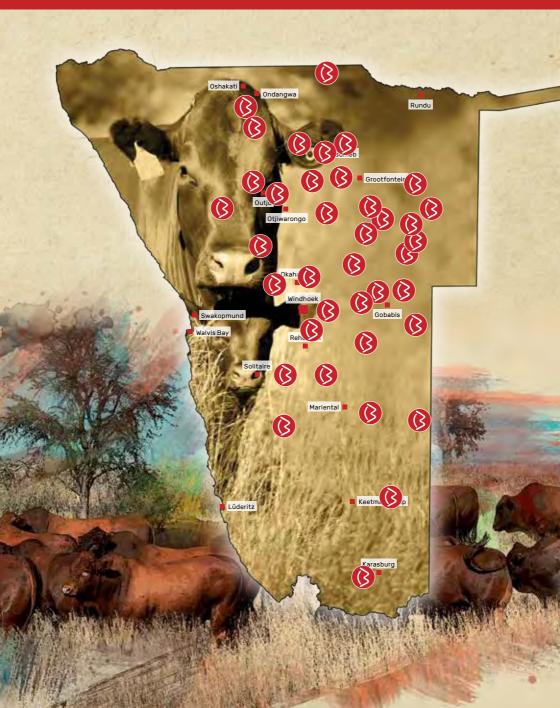
Stud Name	Breeder	Area	Contact No
Jomar Bonsmara	Johan van Rooyen	Aroab	063 28 0677
Erasmus Bonsmara	Harry Erasmus	Dordabis	081 122 9003
Cattle Country Bonsmara	Hano Swart	Gobabis	081 147 7349
Helku Bonsmara	Heidi Oestlund	Gobabis	081 127 0946
Moslabon Bonsmara	Boetie Labuschagne	Gobabis	081 368 6838
Nabibis Bonsmara	Juan Coleman	Helmeringhausen	081 124 0889
Emok Bonsmara	Edward Hansen	Hochfeld	081 124 1657
Hochfeldstreek Bonsmara	Streicher & Hella Coetzee	Hochfeld	081 129 8387
Okamaja Bonsmara	Siegfried du Toit	Hochfeld	081 356 2555
Stokkies Bonsmara	Stokkies von Dewitz	Hochfeld	081 279 6625
Springputz Bonsmara	Dr Thelma von Schauroth	Karasburg	081 124 9117
Colorado Bonsmara	Henk Meyer	K. Hochland	081 124 0939
Hoanob Bonsmara	Heiko Freyer	K. Hochland	081 127 1602
Terraro Zucht Bonsmara	Thomas Horn	K. Hochland	081 147 8919
Zunica Bonsmara	Nic & Sunja van Heerden	K. Hochland	081 261 7308
Gocharus Bonsmara	Hendrik de Klerk	Koës	081 352 0505
Pick a Dream Bonsmara	Bertus Olivier & JC (seun)	Koës/Keetmans.	081 275 0525
Komaweer Bonsmara	Dawie Möller	Leonardville	081 124 5385
Herero Bonsmara	Okomumbonde Research S.	Okakarara	081 247 5637
Hangala Bonsmara	Dr Leake Hangala	Otavi	081 148 8355
Odussa Bonsmara	David Botha	Otavi	081 128 4844
Endelela Bonsmara	Nelia Engelbrecht	Otjiwarongo	081 287 6359
Okozonduno Bonsmara	Junius Mungunda	Otjiwarongo	081 127 6181
Wagner Bonsmara	Ben Mouton	Otjiwarongo	081 122 8503
Tzaus Bonsmara	Dries Venter	Outjo	081 240 6546
Retsu Bonsmara	Tsumis Research Station	Rehoboth	081 239 8309
Rima Bonsmara	Richard Theron	Rehoboth	081 128 2273
Hartebeestloop Bonsmara	Dr Joggie Briedenhann	Stampriet	081 231 6169
Kalahari Bonsmara	Dr Joggie Briedenhann	Stampriet	081 231 6169
Schumacher Bonsmara	Marc Schumacher/Nico Visser	Windhoek	081 124 0741

Buying a registered Bonsmara Bull gives you peace of mind and comes with loads of benefits.

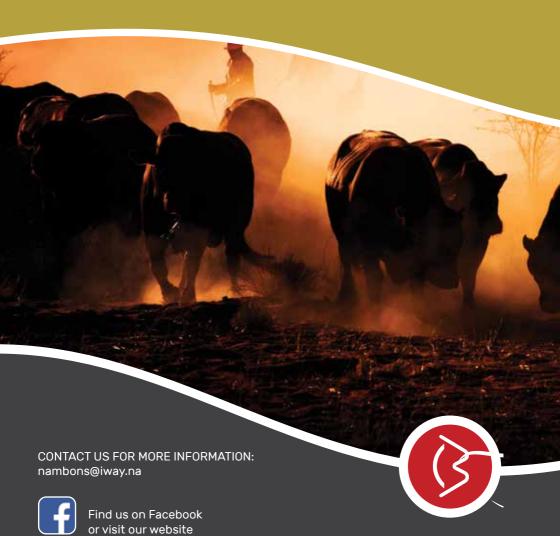
These auctions are presented under the auspices of the Bonsmara Cattle Breeders of Namibia. Official catalogues and compulsory "screening" is a requirement.

Bonsmara Breeders

Find a breeder near you







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