

PICKING THE RIGHT BULL

USING KNOWLEDGE,
COMMON SENSE,
PREFERENCES
AND THE RIGHT FIGURES.

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IT ALL STARTS WITH KNOWING THE DIRECTION

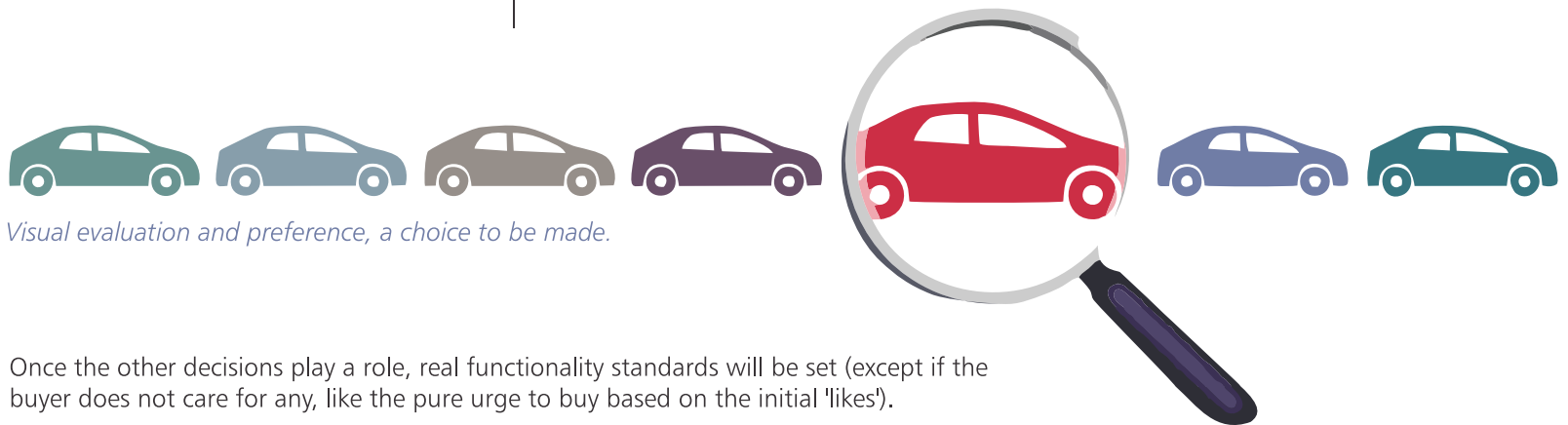
A derivative from a famous quote will be: "Being aimless will ensure success".

This means that setting of an ultimate objective and achievable goals should be the foundation of cattle breeding. If these goals exclude the use of objective measurements and benchmarking it is certainly the choice of the respective breeders. The contrary is also true, namely a well-defined objective with very clear breeding goals and milestones to measure against. It remains a matter of choice.

It is like buying a car. Buying a bull, the car example.

When a decision is to be made in buying a car the buyer will first have a reason for doing so. This can be seen as the objective. Reasons can vary a lot, like: purely recreational, car for a student, bakkie for everyday use, collector, off-road, about-town, etc. The same could be the case for cattle breeding, so many breeders, so many objectives.

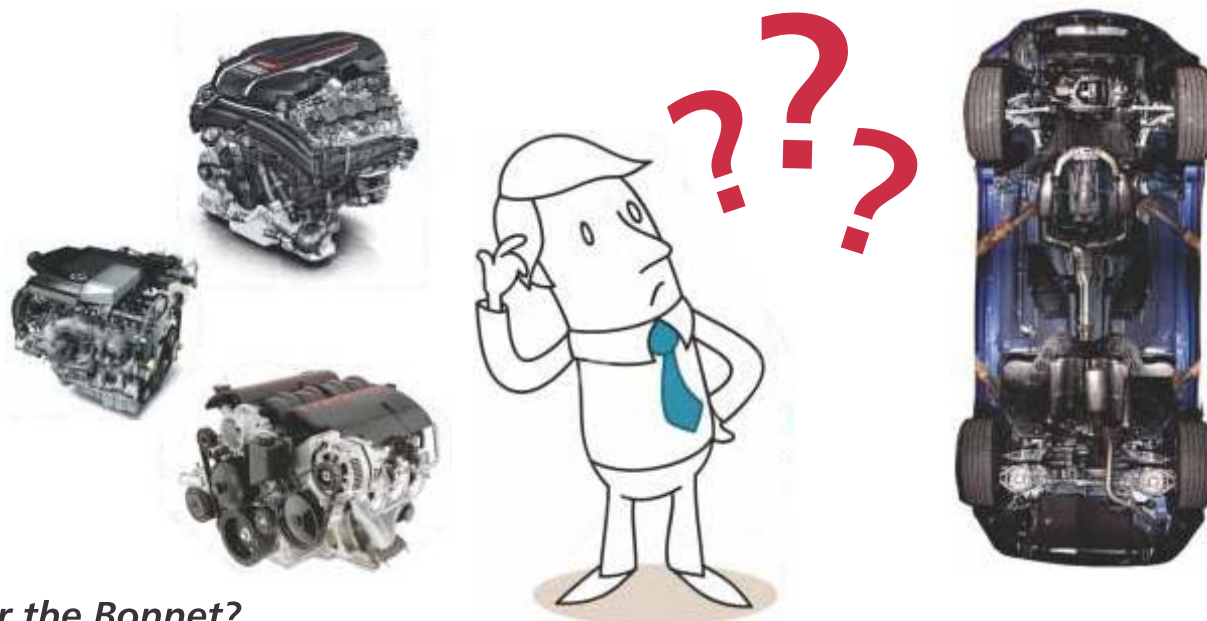
Except where you, as a breeder, is bound by the rules and guidelines of the Society you belong to. Once the objective (or reason) for buying a car is clear, other factors come into play, like preferences and clear specifications. Preferences might be colour, make and model, additional extras, etc. This has nothing to do with real specifications and functionality.



Visual evaluation and preference, a choice to be made.

Once the other decisions play a role, real functionality standards will be set (except if the buyer does not care for any, like the pure urge to buy based on the initial 'likes').

Functionality standards will be based on real data and information, like the tonnage of a bakkie, the fuel efficiency figures, capacity, service intervals, guarantee conditions, re-sale value and many more. Irrespective of the design and visual preferences, these should be the factors determining the decision to buy or not. The buyer will therefore metaphorically 'look under the bonnet' and 'under the car'.



Under the Bonnet?

Under the Car?

Although some factors contributing towards a final decision might still be subjective, the objective facts now really come in to play. Real figures and not merely claims. It is unimaginable to think cars can be bought without specifications and benchmarking with others in the market.

This can directly be related to making choices in buying bulls.

THE LOGICAL STEPS AND ACTIONS

Beef cattle breeders are similar to the designers and innovative but detail engineers in the motor industry.

Designers are active in establishing desirability and lines that will attract buyers. Some of these design features will also have built-in functionalities that accommodate and sometimes enhance the other functional features of the car. The design will also impact on important aspects such as aerodynamics, handling and other features. The real crucks, however are features such as engine strength, types of brakes, suspension, and others. All this will be in harmony with the original goal of the make and model.

Beef breeders should therefore have a very clear view of who their buyers are and their conditions for beef production.

Also their constraints, market needs, resources, the risks they face and how price is determined for their product. This will, in turn determine many factors such as their choice of breed, functionalities deemed to be important, the maturity type preferred, what roles played by female fertility, maternal ability, growth and ability to adapt under differing environments and production systems.

TURNING NEEDS INTO SOLUTIONS



The logical thing for a stud breeder to do is therefore to measure and record each and every aspect of breeding animals that are important to buyers and to quantify the differences among animals. This will enable the buyer to not only buy according to preference, but also need. Breeders should therefore sell solutions to keep buyers in business.

In these descriptors of the product, buyers should be aware what the impact of the published specifications will be in terms of the performance of the product. In cattle terms, this will be the difference in progeny performance of the bull that is given consideration at a sale. Buyers cannot buy the management skills or any other environmental property influencing the performance of bulls on the farm of the seller.

Only the merit of the animal, as a potential parent, can be bought.

In short, sellers of livestock need to adapt breeding objectives to suit the needs of their buyers. They also have to supply the buyers, in a clear way, the merit of animals they are considering to buy.

GENETIC MERIT

Determination of genetic merit is a topic of its own.

Merit of an animal (breeding values) refers to the difference its progeny will make given they are to be compared to the progeny of other parents. Obviously merit also needs to be described in the context of the original objectives and goal.

Simply put, when a goal and objectives are set, animals will be ranked according to their performance to fit into these objectives. In practice, many different traits will each contribute towards the goal. Their relative importance will differ according to their relative economic importance (in the context of a specific production system), their (genetic) relationship with other economically important properties, their mode of inheritance and their impact on the sustainability of the production system.

OBJECTIVES & PERSPECTIVES



Simply put, when a goal and objectives are set, animals will be ranked according to their performance to fit into these objectives. In practice, many different traits will each contribute towards the goal.

(Phenotypic) measurement or recording, if used as comparison among peers of the same group, on the seller's farm, is a partial reflection of the genetic merit (breeding value) of the recorded animals. Single trait ranking is also a partial reflection of genetic merit for obtaining the goal and objectives.

Genetic merit for single traits or properties contributing to overall genetic merit (based on the objectives) can only be quantified or described (like the descriptors in the car manual and benchmarking with other cars) when breeders are recording these traits and make them part of the genetic merit predictions.

THIS IS NOT THE END

This is simply the beginning, as the setting of goals and the ranking of animals accordingly lead to an extremely important step, namely plans to achieve the goals optimally through mating practices. This can be a subject for another day. Enjoy designing and building cars, remember to include the user's manual and specifications. ■

BLUP breeding values are the most accurate predictors of genetic merit for these contributing traits.

One step further – combining genetic merit for single traits to fit the goal.

As all traits of economic importance are genetically related, selection on single traits is dangerous.

The logical choice is therefore to use a combination of traits in describing the genetic desirability of an animal as a parent. The previous figure gave a very clear indication of the traits important to profitability.

These traits are combined into genetic-economic values called

Cow Value – depicting the genetic merit of each animal in terms of the profitability of its daughters.

Growth Value – depicting the genetic merit of each animal in terms of the profitability of progeny in a feedlot

Production Value – combination (in the ratio of 80:20, favouring Cow Value) of the other two values.

All potential parents can be described according to these values, subjected to minimum selection criteria and considered as parents.

“SCIENCE IS NOTHING,
BUT TRAINED AND ORGANISED COMMON SENSE.”

Thomas Huxley