





Tel: +27 (18) 294- 3242

Fax: +27 (86) 580 4161

E-mail: nbareki@nwpg.gov.za

Research Building 114 Chris Hani Drive Private Bag X804 POTCHEFSTROOM NWP, 2520

AGRICULTURAL DEVELOPMENT SERVICES AGRICULTURAL RESEARCH SERVICES

Event : Farmers' Information Day

Presenter : Mr N.P. Bareki

Presentation title : Herd Sire Selection – Artificial Insemination and Bulls

Location : Twitter Space

https://twitter.com/hashtag/FarmSpaces?src=hashtag_click

Date : 26 August 2021

Requester : Mr Olerile Lekgetho: https://twitter.com/OleLekgetho and

https://twitter.com/Gugulethu_CM

Aim : Training of young farmers

Purpose : To enhance farmers' understanding of principles involved

in Herd Sire Selection.



Gugulethu Mahlangu 🤹 ... · 26 Aug

Tonight on #FarmSpaces
Guest speakers are:

@nathibareki: Researcher
@FaithTumelok: Researcher
@ThaboDithakgwe: Cattle farmer

Joel Nkuna: Al Specialist

Hosted by: @OleLekgetho

Join us TONIGHT 6PM Central African Time Live on Twitter Spaces.



Bull (Herd Sire) Selection Presentation

https://youtu.be/BWFmb9cur9I

Bareki: Greetings to everyone on this wonderful space or platform, I am Nkosinathi Bareki, a Researcher in the NWDARD with particular interest in Animal Breeding and Applied Animal production.

Ole & Gugu, thank you for the opportunity to share some insights on the topic of Bull Selection/choice.

I will be handling this talk along with a colleague of mine Ms Tumelo Kekana, and I think we should allow her to join the conversation.

Hosts: ...

Kekana: Greetings to everyone and thank you Ole (or whoever the welcoming host will be) for this wonderful opportunity ..., I am an Agricultural Technologist with NWDARD Research unit in Potchefstroom, and I will gladly be participating in this discussion.

Host. ...

Kekana: Ole, when I look at the topic at hand, Bull Selection, I am concerned that the topic may be vague/less precise and could encompass a whole lot of aspects. Rre Bareki, could you please break this topic down to basics for us.

Bareki: I agree with Mme Kekana that for this evening we may need to refocus a bit and talk about Herd Sire Selection.

Reasons:

- 1. In cattle any sexually mature male with the right attributes is a bull.
- 2. A **sire** however is more than a bull, there is now more focus on the **purpose** for this particular bull. We look at it with our farming **objectives** in mind.

Mme Kekana, are we on the right track?

Kekana: Rre Bareki I think we are on the right track, and I am prompted/encouraged to outline what may influence the **objectives** as you mentioned.

A farmer may want a bull for **three** reasons, say:

- 1. **A bull to use on heifers:** Here we require High calving ease with average calf growth and maintenance. These traits are antagonistic or opposing to each other since high calving ease (low birth weight) is associated with less growth and lower cow weight.
- 2. **A bull to breed replacement heifers**: requires high fertility, good milk genes for better calf growth and average maintenance (not too large heifers, so we can maintain reasonable feed requirements).
- 3. **A bull for terminal crossbreeding**: Here, maximum growth is required from calves, while fertility and milk is not prioritised because the offspring/calves are destined to be slaughtered. Please note that these types of bulls are ONLY to be used on fully grown (or crossbred) cows that calve easily and are kept in a good environment.
- **NB**: We must remember that breeding of cattle is never simple, one should note that breeding objectives are essential, since two animals with different strengths and weaknesses, may have the same selection value, so consider the above and develop breeding objectives with that in mind.

Now that we have outlined what will influence our **herd sire** choice, I would like to pose a question to our wonderful participants: only three responses will suffice!

Looking at a herd sire **visually and on breeding values**, what is the most important thing to remember, or what exactly is it that you see?

The Host will facilitate the Answers and Mme Kekana will on say **Ok** to all answers if need be

Bareki: Thank you Ms Kekana, Folks let us look at the following:

- 1. Gene transfer (@50%) and its implications
- 2. Visual vs EBV's
- 3. EBV indices for selection

Selection of bulls should be based on their being:

- **Of superior genetic quality** so that their progeny can reflect the desirable features that the cattle breeder requires for a particular market/ objective or intensions.
- **Reproductively sound** so that they can produce an adequate quantity of good quality semen and also have the capacity and desire to serve females
- **Structurally sound** with a good temperament

I think in the end, it is important that **producers define clearly what market they are breeding for and determine the breeding objectives**, or aims, which best satisfy that market.

Any individual trait or criterion that a producer uses in selecting a Herd Sire /Bull for the market must:

- a. be of **economic importance** (worth Money to the breeding program)
- b. be of **reasonable heritability** (passed from the sire to the progeny)
- c. be **measurable** (we should progress from one point to the other!)
- d. there must be **variation in the trait** to enable selection of superior animals.

Rre Bareki will handle most questions and closing remarks.

Host...

Ir N P Barcki - Pr. Sci. Nat. (Anim. Sci.)

Production Scientist - Animal Breeding

26/08/2021