



# **GROWTH POTENTIAL OF NGUNI, BONSMARA AND BONSMARA CROSSES CATTLE TO MEET FREE RANGE BRANDED BEEF SPECIFICATIONS**

PRESENTED BY

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**RESEARCH COLLOQUIUM 2017**

# Background

- Retailers in South Africa brand beef based on breeds or production systems.
- Woolworths followed by Pick n Pay established new value chains to supply high quality free-range beef markets in South Africa.
- Free Range beef (FR) was branded by the retailers and is mainly from grass fed cattle




Background conti.....

- What is nature of Free Range farming?
  - The nature of Free Range farming is that it must consist of extensive farming conditions, with cattle being allowed to roam and graze on natural and/or planted pastures 24 hours per day for their entire life, from birth to slaughter.
- According to Nenghovahela (2016), the challenge for the 2016 scientists was to understand how the communal and emerging beef sector can be turned into a desirable sector for the future.
- Timely so, the Free Range beef market was established by SA retailers that fits the communal and emerging beef sector.



Background conti.....

- Success of this branded product depends on many animals meeting the retailers' specifications
- The retailers' specifications require that an animal kept on range reaching a carcass weight of 180kg to 300kg (360 to 600kg live weight) to ensure meat cuts of acceptable size before it reaches 36 months (4-toothed).  

- Furthermore specifications require that: Extensive farming, Welfare Act compliant, Breed, Sex, Classification, Fat colour, Damage, Identification, supplementary feeding (no animal by products), no growth promoter, medication

Background conti.....

# Lean vs Very Lean



# Rounded vs Flat



# Research question

- Is this then achievable by the resource poor beef farmers?



# Aim of the study

To predict the likelihood for Nguni, Bonsmara and Bonsmara crosses cattle on Free Range to meet the final slaughter mass as per FR specification.



# Methodology

Three datasets used for the study are as follows:

1. 499 Nguni and 650 Bonsmara steers on sweet veld savannah vegetation (Mara research station) on veld club test.
2. Bonsmara crosses data from a private farm at Vaalwater, which is a typical mixed vegetation type and
3. The last data was collected from 58 Bonsmaras heifers, at Glen farm which is a typical Sweetveld grassland vegetation.

Data was analysed using descriptive statistics to predict final slaughter weight within 1080 days.

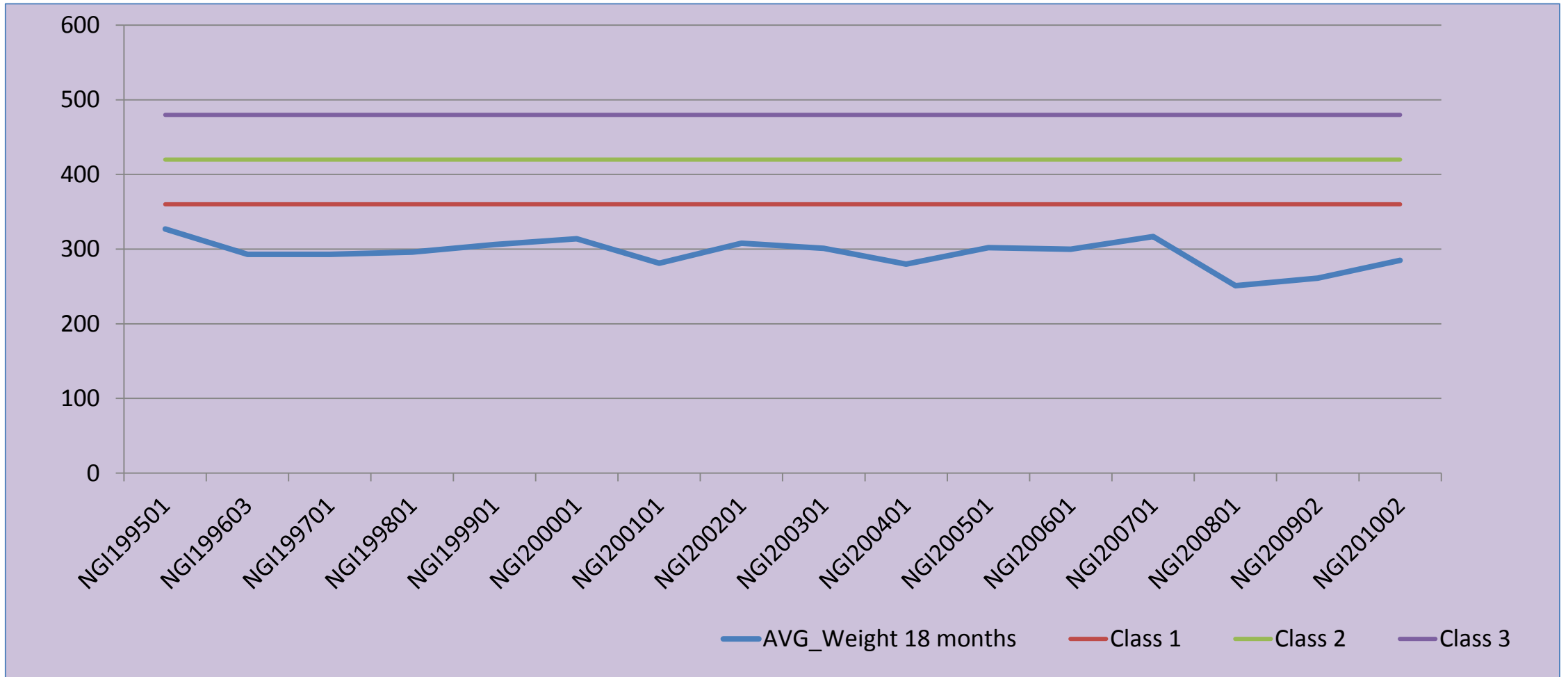




# Results and Discussions



Figure 1. Growth potential of Nguni oxen under Free Range conditions  
(Mara data, Sweet Bush veld)



**Figure 2. Growth potential of Bonsmara oxen under Free Range Conditions  
(Mara data, Sweet Bush veld)**

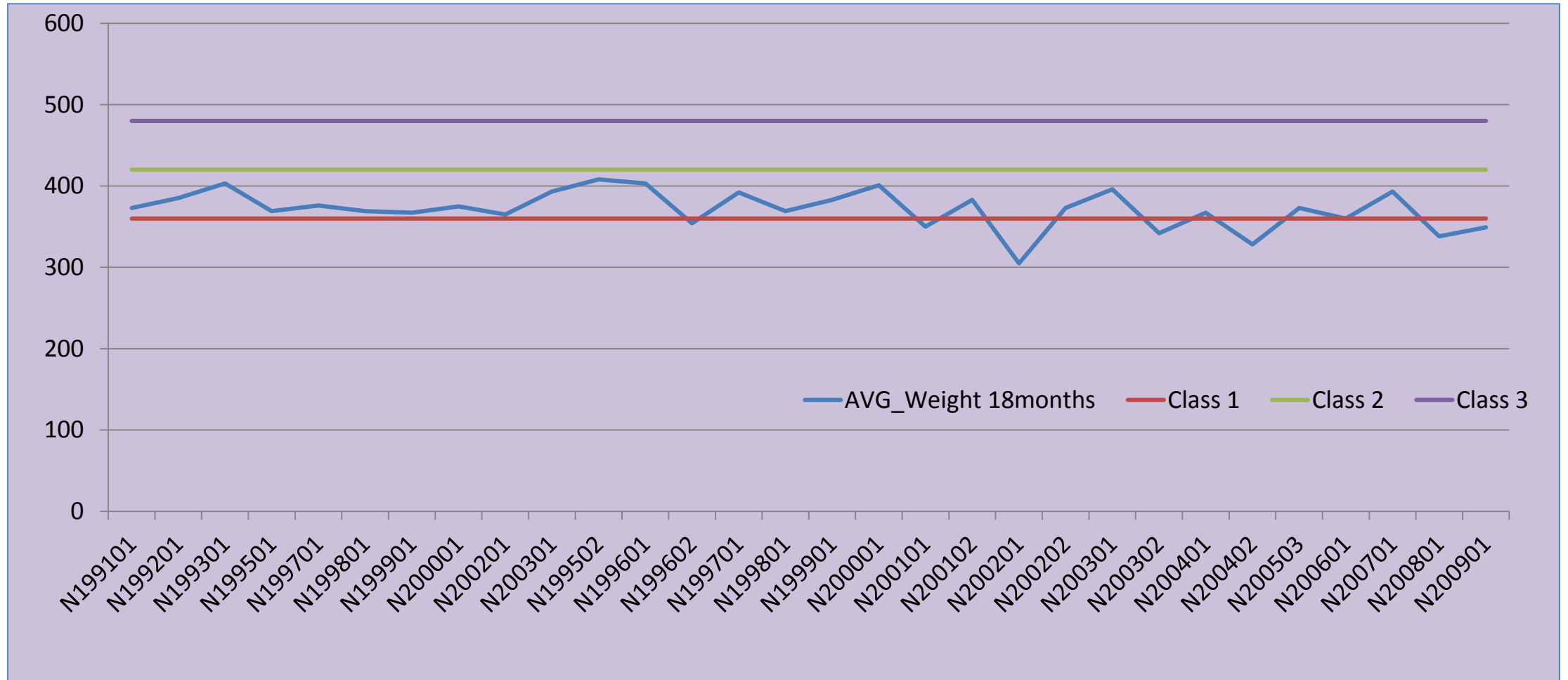


Figure 3. Growth potential of Bonsmara heifers under free range conditions (Glen data, Sweet grassveld)

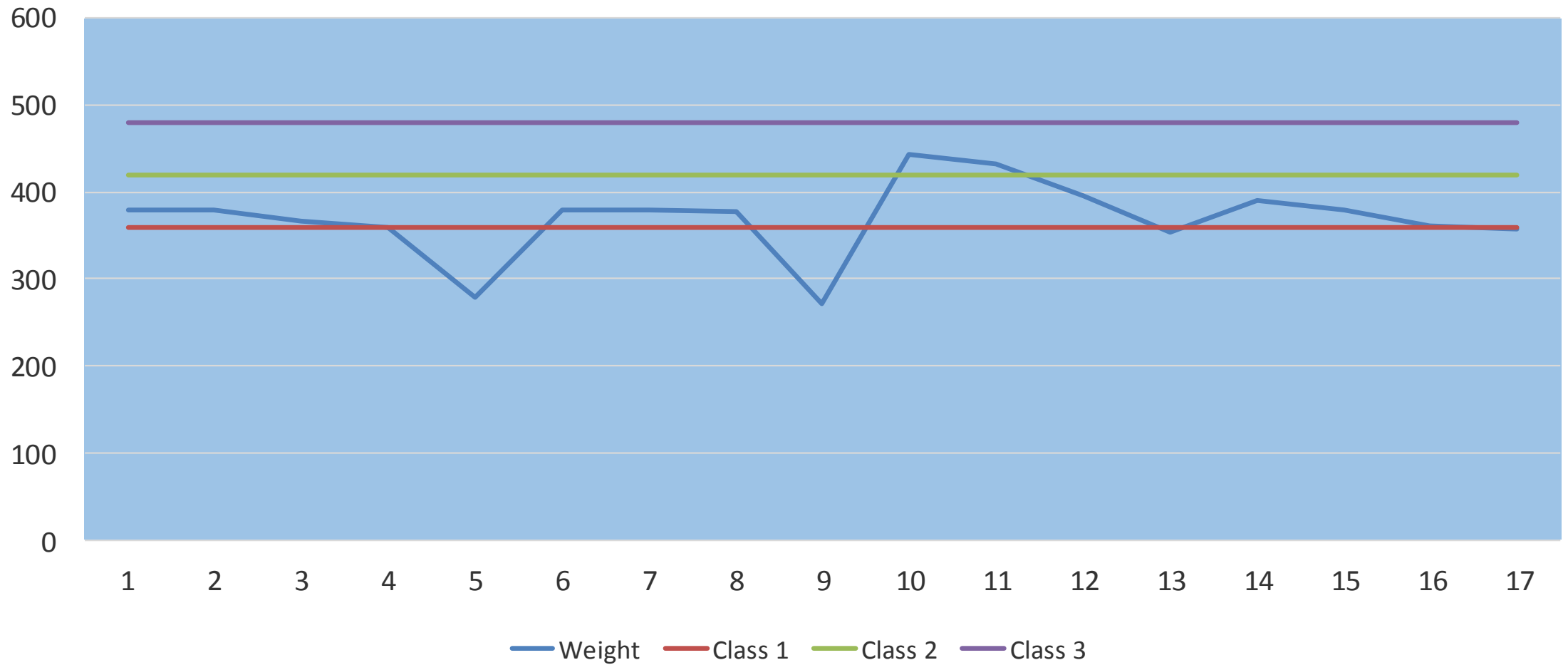
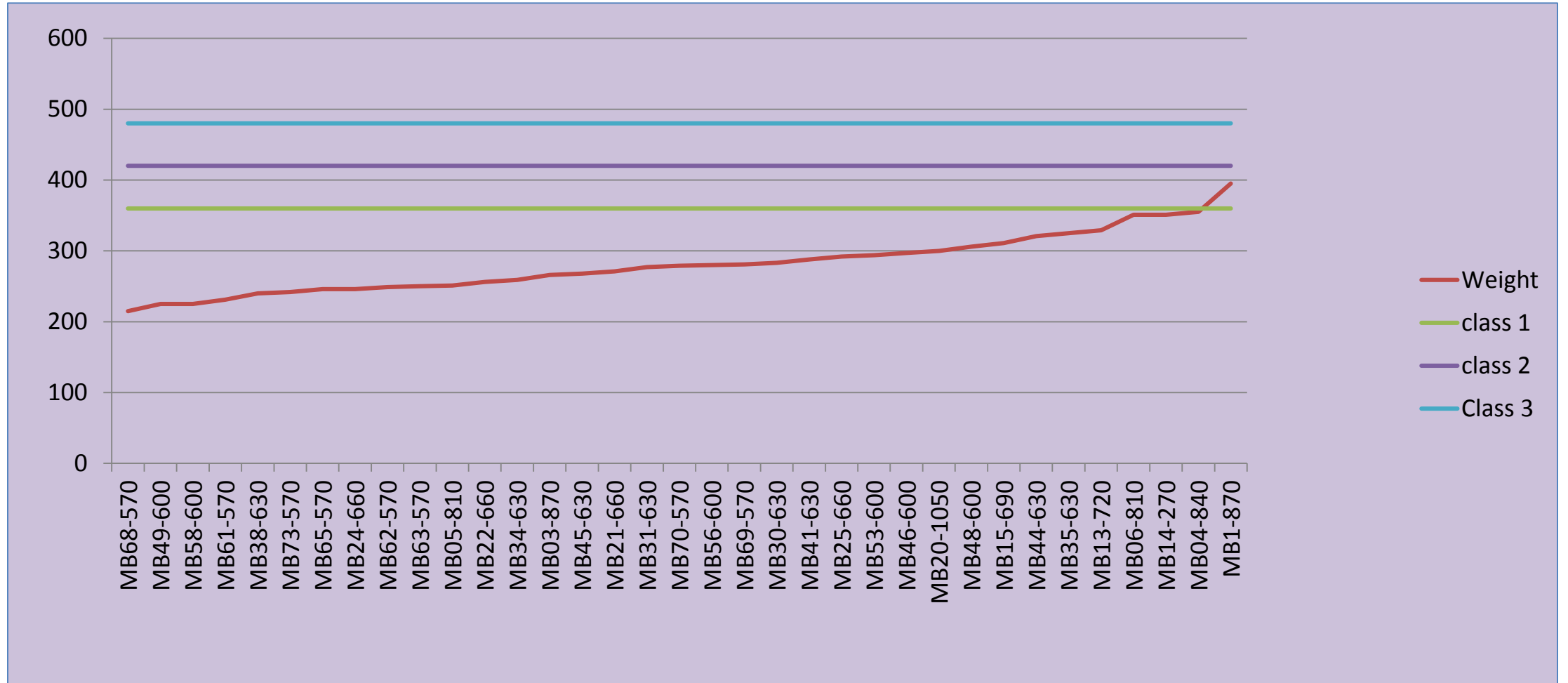


Figure 4: Growth potential of Bonsmara Crosses under Free Range Conditions (Vaalwater data, Mixed savanna veld)





# Conclusions

- Nguni, Bonsmara and Bonsmara crosses may meet FR specifications under the three different vegetation types
- However, as alluded earlier, the success of this beef brand depends on many animals meeting retailer specifications.
- Thus, retailers together with their strategic partners will ensure integrated technical support to resource poor farmers to ensure sustainability



- As such, the resource poor farmers will be developed in the commercial producers.
- Thus, contributing positively into provincial economic growth and sustainable job creation; which in turn will contribute to sustainable rural development