Free Range Beef Production from small-scale & emerging beef cattle farmers in South Africa

Question

Can high-quality beef products be developed from cattle from small-scale & emerging farmer herds to *cost-effectively* meet the preferences of South African beef consumers?
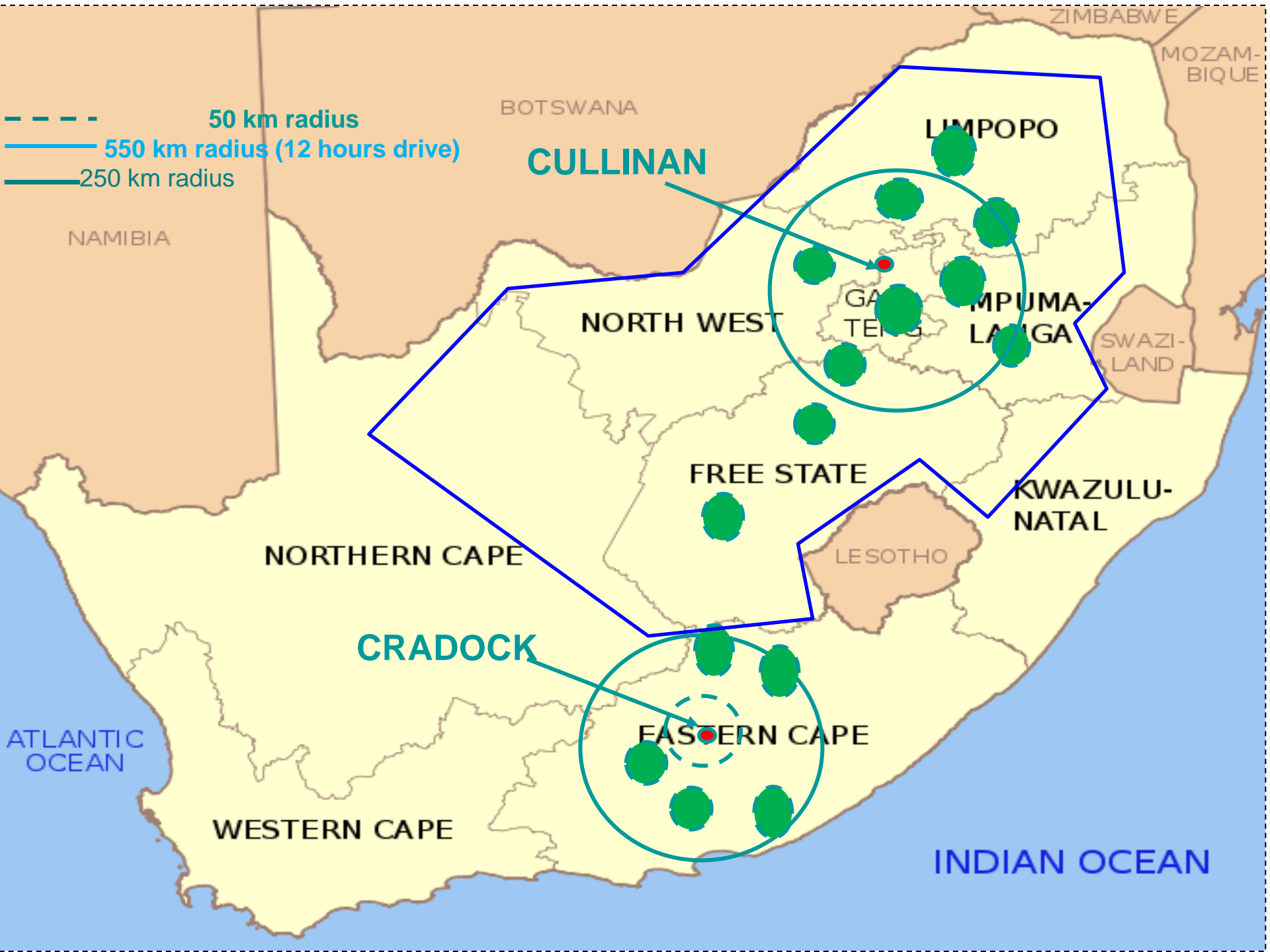
Project design

- Determine market specifications with retailer
- Determine production protocols to meet specific market
- Understand the Value Chains
- Organise entities to supply the market
- Organise farmer support system
- Facilitate farmer adoption to produce for a specific market
- Develop decision support tools

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Objective 1: What are the value chain & consumer requirements and how can small-scale farmers be rewarded for meeting those market specifications?

- Two value chains (Woolworths/Cradock Abattoir & Woolworths / Pick 'n Pay/Cavalier Meats), both targeting free-range (FR) beef

- Woolworths/Cradock can also use FR lower quality beef for FR biltong & FR other manufactured products

Legend:
- - - - - 50 km radius
——— 550 km radius (12 hours drive)
——— 250 km radius

CULLINAN

CRADOCK

ZIMBABWE

MOZAM-BIQUE

BOTSWANA

LIMPOPO

NAMIBIA

NORTH WEST

GAUTENG

MPUMA-LANGA

SWAZI-LAND

FREE STATE

KWAZULU-NATAL

NORTHERN CAPE

LESOTHO

ATLANTIC OCEAN

WESTERN CAPE

EASTERN CAPE

INDIAN OCEAN

Cavalier Abattoir Partnership

- www.cavalier.co.za

Teams to supply

- NW:Royal Bafokeng Farmers -2800 /yr

- LP:Waterberg District Farmers Team

- Sedibeng District Agripark Farmers Team

- FS: Fezile Dabi Farmers Team

- Thabo Mofotsanyane DM FT?

- Gert Sibande DM & Nkangala DM   MP FT

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Objective 2: What technology requirements, organisational structures & innovations systems & processes are needed to support these value chains?

Technology requirements

- ✓ Animal health & welfare

- ✓ Traceability & animal performance recording

- ✓ Nutrition & animal supplementation

- ✓ Rangeland management

- ✓ Breeding herd management

- ✓ Crossbreeding & sire selection

- ✓ Beef market specifications

- ✓ Transport, pre-slaughter & processing management

➡ *Using new 'standard operating procedures'*

Objective 2: What technology requirements, organisational structures & innovations systems & processes are needed to support these value chains?

Organisational structures

- ✓ Farmer co-operatives/team led by local co-operative development experts with mentoring expertise & experience

- ✓ VAIMS (Value Addition Information Management System) survey tool being used to measure value chain performance & identify improvement scenarios

Objective 2: What technology requirements, organisational structures & innovations systems & processes are needed to support these value chains?

Innovation systems & processes

- ✓ Improve the adoption of practices & processes with positive impacts on business profitability & sustainability

- ✓ Examine the impact of primary language & culture on effectiveness of value chain relationships

- ✓ Develop farmer psychologicial profiles (in beef & poultry value chains) & correlate profiles with farmer business performance to customise development programs e.g.
  - 'Entrepreneurs' – challenge & mentor
  - 'Average' farmers – group-based learning & peer support
  - 'Reluctant' farmers – peer pressure & withdraw support

Objective 3: Develop decision-support tools to recommend the most sustainable & profitable beef production systems for small-scale & emerging farmers

Objective 4: Measure, monitor & evaluate the ongoing performance of the project & all its components

Market specifications for Cavalier/ Woolworths retail partners

PE Strydom
API,
Irene 2017

Woolworths - Cavalier: Criteria

- No fear and distress

- No hunger and thirst

- No pain, disease or injury

- Must express normal behaviour

Woolworths - Cavalier: Criteria

- Farming: extensive – whole life free roaming and grazing.

- No auction cattle

- Feeding: Licks, urea, quality hay, silage – take to cattle on pasture

- High energy supplement: max 1% body weight
  - 400 kg animal, 4 kg feed per day

- No animal by-products – chicken litter

- No added hormones or stimulants

- No antibiotics in feed

- Treat sick animals, keep records, 2 x withdrawal
  - 28 days = 56 days

- Traceability – ear tag and brand mark – farm to abattoir

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Breed and sex – no bulls, no dairy

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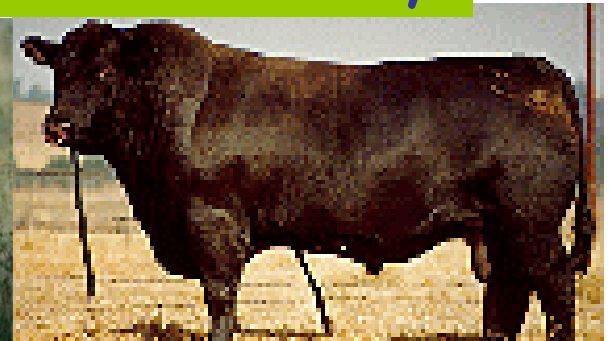
Woolworths - Cavalier: Criteria and accommodation of deviations

- A, AB and B classes to 4 incisors - about <36 months
- Carcass weight limits: 180 – 300 kg.
- Live animal: 360 – 600 kg
- Fat class: 1 - 3
- Fat classes in SA classification: 0 – 6
- Fat colour: Creamy to slightly yellow
- No Bruising
- No measles

Woolworths - Cavalier: Criteria

- A, AB and B classes to 4 incisors - about <36 months

Woolworths - Cavalier: Criteria

- Fat class: 1 - 3
- Fat classes in SA classification: 0 – 6

Fat classes are indicated in the following manner:

000 =   Means **no visible** fat on carcase

111 =   Means a **very lean** carcase

222 =   Means a **lean** carcase

333 =   Means a **medium** fat carcase

444 =   Means a **fat** carcase

555 =   Means an **over-fat** carcase

666 =   Means an **excessively fat** carcase

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Accuracy:

Experience   Breed type

Colour   Conformation

Length of hair

Selecting animals for slaughter

Well vs Lean Finished on Pasture

Lean vs Very Lean

Typical fat code 2

Prevention of bruising

- Transport - load size (18, 36, 72), skill
- Handling of animals
- Design
- Mixing of animals
- Horns

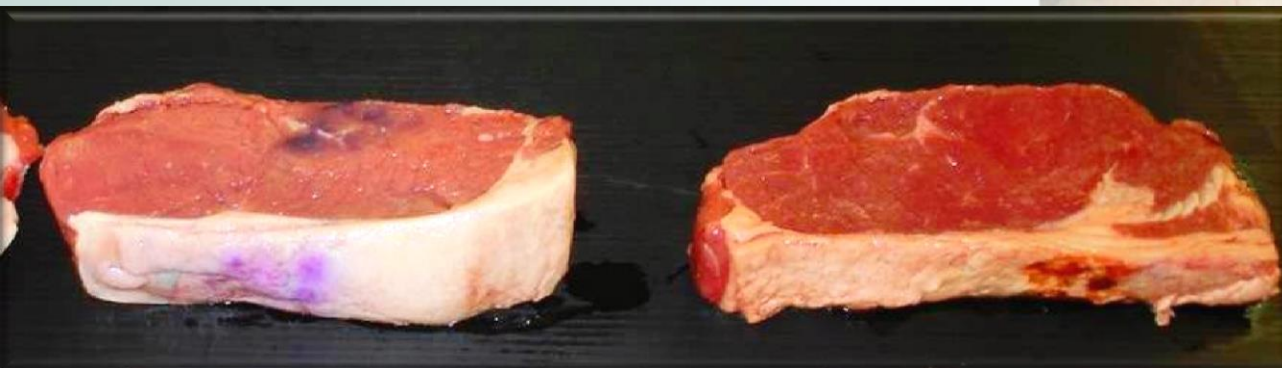# Collection, loading, transport, horns, handling facilities,

Other issues

Yellow and white fat

and meat colour

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Out of specifications

- Still included in program but not at premium prices

Planned outcomes

- ✓ Effective networks of farmers partnerships with regional value chain partners with farmers appropriately rewarded for meeting market specifications

- ✓ Significantly increased capacity across all sectors of the value chains

- ✓ New tools, practices, processes & technologies that improve the effectiveness of beef value chains focused on smallholder farmers

- ✓ Improved profitability & productivity of smallholder beef businesses & their communities

- ✓ More profitable beef production systems with a cultural fit

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Effective & Profitable Partnerships

Thank You!

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