

Assessment of food safety risks associated with pre-slaughter activities during the traditional slaughter of goats in Gauteng, South Africa

Dr James Oguttu¹ and Dr Nenene Qekwana²

¹= University of South Africa, ²= University of Pretoria

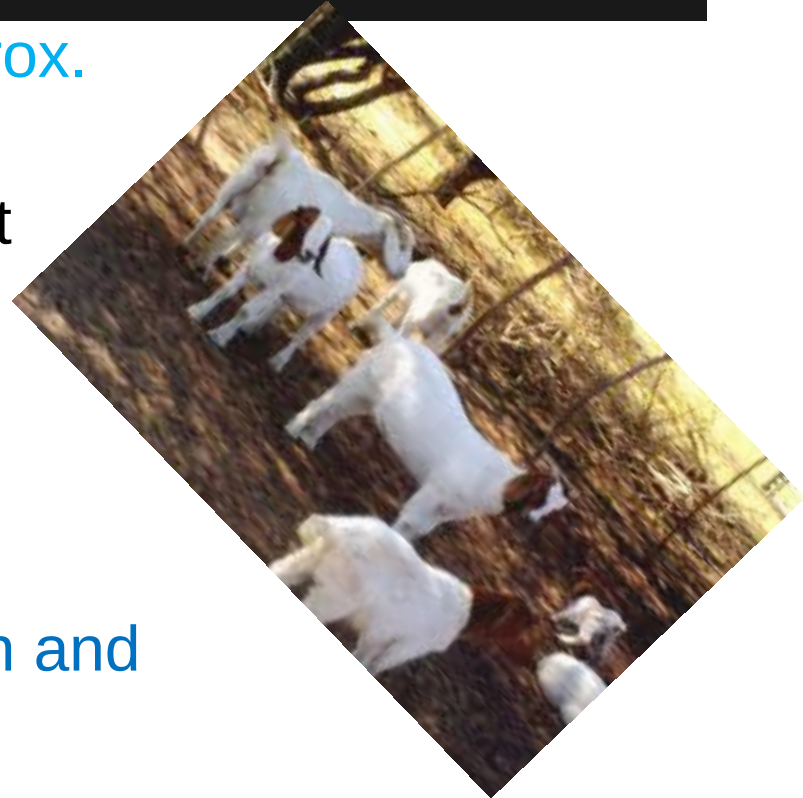
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Background

- ❑ In 2012 population of goats was approx. 2.033 millions
 - Less than 0.5% are slaughtered at registered abattoirs
 - Informal slaughter is prevalent
- ❑ Meat Safety Act 40 of 2000 permits traditional/cultural slaughter
 - Meat is used for own consumption and not sold



Background

- ❑ Regulation 79 & 80 (Meat Safety Act, 2000) prescribes
 - declaration of health to be provided before slaughter.
 - mitigate food safety risks associated with slaughter of animals
 - Prevent animals not fit for human consumption entering the food chain.
- ❑ During informal slaughter **food safety associated hazards are not controlled**
 - No food safety quality assurance in traditional or ritual slaughter
 - Animals presented for slaughter may be asymptomatic
 - In SA & other African countries incidences of foodborne diseases associate with meat from informal slaughter occurs

Background

- ❑ Handling of animals prior to slaughter influences food safety risks.
- ❑ Important factors include:
 - Prevailing conditions at source
 - The length of time animals are exposed to stressful conditions
 - Conditions during transportation
 - Food withdrawal or the lack of before slaughter



Research problem

- ❑ Investigate pre-slaughter activities associated with traditional/ritual slaughter in SA.
- ❑ Assess the potential of these pre-slaughter activities to mitigate hazards associated with goat meat from informal slaughter



Methodology

The study area: taxi ranks & informal markets located in Tshwane Metropolitan Municipality- second largest in Gauteng Province & among the six biggest metropolitan municipalities in South Africa

The study population: The people found at taxi ranks within Tshwane - people from areas within & outside the city (other provinces of the Republic of South Africa)

Data collection: Structured interviews with respondents (n=105)

Results (Demographic profile)

❑ Out of a total of 105 respondents

- Males (54.3%),
- Females (45.7%).
- Respondents came from following provinces:
 - Gauteng province (61.9%),
 - Limpopo province (15.2%)
 - Mpumalanga (10.5%),
 - Free State (1.9%).
- Neighbouring countries: Zimbabwe (3.8%) & Mozambique (1%)

Results & Discussion

❑ Sources of goats

- Approx. 70 % of goats slaughtered come from
 - neighbours (20.6%),
 - subsistence farmers (14.7%),
 - own goats (30%)

- These are traceable sources

❑ Rest source from auctions & speculators-traceability is problem



Results and Discussion

❑ Transportation and holding of animals

- The majority (67.6%) source goats from 1-11 km
 - Complies with < 36 hrs
- Majority (70%) uses vehicles to transport goats
 - Vehicles are not designed for transporting animals-public or private vehicles

❑ Holding goats prior to slaughter

- Majority tie the animal to a tree, & others use a kraal
 - holding period is between 1-72 hrs
 - > 70% of the animals are slaughtered within 36



Results and Discussion

❑ Preslaughter Health Assessment:

- **Health certificate:** none of the respondents requests for H/C
 - characteristics of the animal as required by the ancestors more important
- **Pre-purchase examination:** Only 20% (n=21) perform pre-purchase inspection before purchasing,
 - 12 (57%) indicated they had ante-mortem examination experience.
 - Experience is gained through informal training by older relatives.
 - Respected/elders in the community with experience in ritual slaughter



Results and Discussion

❑ Preslaughter Health Assessment:

❑ **Antemortem inspection**

- Based on 21 respondents (had observed &/or performed ante-mortem inspection)
 - the criteria for antemortem inspection:
 - Employs a systems approach
 - Very detailed
 - However, it is based on indigenous knowledge & not scientific



Conclusion

- ❑ Study shows that traditional & ritual slaughter involves pre-slaughter activities with potential to mitigate for food safety hazards
 - buying goats from known and traceable sources
 - Transporting animals within 36 hr period
- ❑ However in general pre-slaughter activities may not offer adequate protection to consumers of such meat
 - There is a need for measures that guarantee that only healthy animals are slaughter –health certificate

Conclusion

- ❑ Some pre-slaughter activities have potential to propagate hazards
 - Stressing animals prior to slaughter & long holding times
- ❑ Meat Safety Act 40 of 2000 needs to be enforced where it applies
- ❑ Act should be reviewed to provide guidelines to improve on risk mitigate during traditional slaughter of goats.

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□ University of Pretoria

- where study was done

□ ILRI

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Thank you

Questions and
comments are
welcome

