

Insights on Consumption of Mutton in Two Communities in Cameron and Cove, Arizona on the Navajo Nation



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Abstract

Scientific Question

- How do two communities on the Navajo Nation view sheep traditionally, and what are their thoughts on mutton consumption?

Motivation

- This project stems from concerned community members in Cameron and Cove that wanted to understand whether their sheep were accumulating uranium.

Purpose

- In this project two mutton (i.e., sheep) consumption surveys conducted in Cameron and Cove, AZ were compared to determine the overall consumption of mutton, the demographic differences in mutton consumption between the two communities, and how mutton consumption has changed over time.
- The results from this project will be coupled with the uranium analysis of sheep tissues and organs being conducted by Northern Arizona University (NAU) and given back to the community members, livestock owners, and policy makers on the Navajo Nation.

Limitation

- This project stems from the survey work being done in only two communities on the Navajo Nation.

Introduction

- The uranium mining boom occurred during the 1950's to the 1980's on the Navajo Nation but as mining came to an end, the mining companies were not held responsible for remediating their mine sites.
- For Navajo, sheep are an important traditional dietary staple with importance being historically documented in the Long Walk of 1864 and the Livestock Reduction of the 1930's.
- Two consumption surveys were conducted in Cameron and Cove, AZ by Dr. Tommy Rock (2017) and Ms. Tasha Nez (2019), and survey data from both of those studies were analyzed for this study.

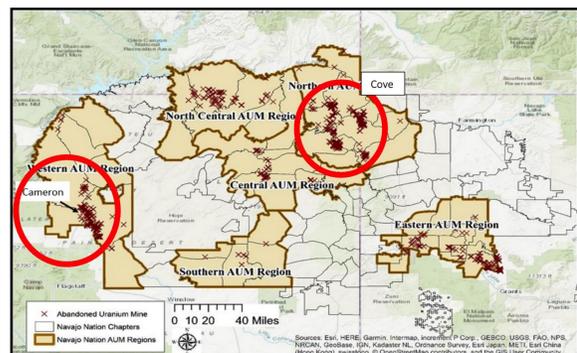


Figure 1. A map of the Navajo Nation showing mining areas. Cameron and Cove are indicated by the red circles.

Methods

Initial Approvals:

- Before conducting any surveys within these communities, the research had to get approved by various agencies within the Navajo Nation including the communities Cameron and Cove as well as the Northern Arizona University Institutional Review Board (1009330-1) and Navajo Nation Human Research Review Board (NNR-17.266)
- Once the research was approved, the mutton consumption survey was conducted in Cameron (2017) and Cove (2019).

Cameron Mutton Consumption Survey

- The Cameron Mutton Consumption survey was conducted in 2017 by Dr. Tommy Rock.
- The sample size for this survey was 72 participants ranging from ages 18-100 years old.
- The survey was conducted at several community events in Cameron, Arizona.
- The survey asked 20 questions about mutton consumption and traditional views on mutton.

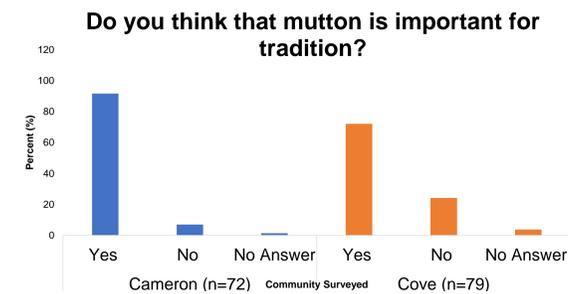
Cove Mutton Consumption Survey

- The Cove Mutton Consumption Survey was conducted by Tasha Nez in 2019.
- This study used the same Mutton Consumption survey from Cameron, AZ.
- The sample size for this survey was 79 participants ranging from ages 18-100 years old.
- The survey was first conducted at a community event on July 2, 2019.

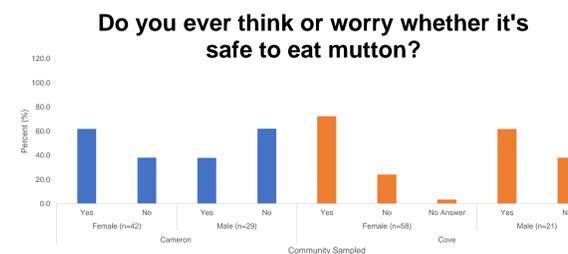


Figure 2. A photo of a shepherd and his sheep on the Navajo Nation.

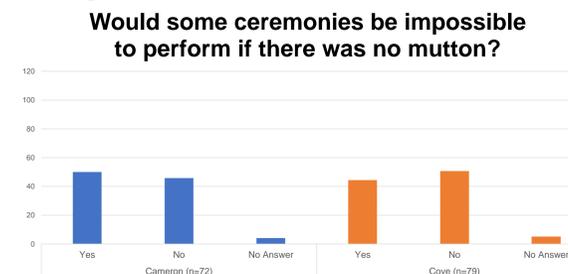
Results



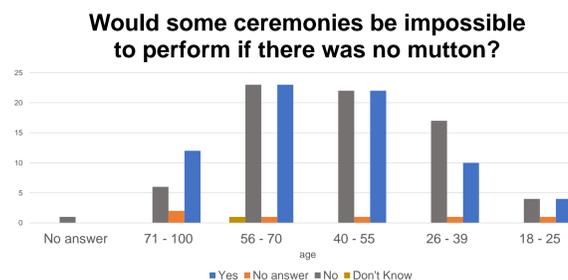
- In both communities, most participants thought mutton was important for tradition.



- While the female responses were similar in both communities, the male responses in both communities differed from each other.



- The responses from both communities were very similar.
- An equal number of participants said it would be impossible to perform ceremonies. However, the same amount of people said nothing would change.



- In this graph we combined the two communities into one graph.
- The 40-55 & 56-70 age groups had the most participants in each survey and had similar responses.
- There was one participant that did not identify their age.

Discussion

- The views on mutton being traditional is a common mindset between both communities. This may result in social gatherings always having some sort of mutton dish.
- Though, when asked about the ceremony aspect, both communities had different views but had similar outcomes.
- In each survey, the female participants doubled the amount of male participants.
- When asked about the safety precautions involving mutton, surprisingly Cameron did not worry about the mutton they were consuming, despite having high levels of exposure to uranium.
- A large percentage of middle-aged participants had similar views when it came to ceremony and tradition-related questions.
- The Ingram research team suggests further research in different communities be conducted to get a clearer picture of mutton consumption.
- Another question researchers should ask is: How often do Navajos consume mutton? Is it daily, weekly, monthly?

References

- JC, Rock T; Camplain R; Teufel-Shone NI; Ingram. "Traditional Sheep Consumption by Navajo People in Cameron, Arizona." *International Journal of Environmental Research and Public Health*, U.S. National Library of Medicine, <https://pubmed.ncbi.nlm.nih.gov/31671510/>
- Nez, T. R. (2020). *Cove mutton consumption survey: Policy insights to address uranium contamination of Navajo traditional mutton* (Order No. 28256663). Available from Dissertations & Theses @ Northern Arizona University; ProQuest Dissertations & Theses Global. (2471743232). Retrieved from <http://search.proquest.com.libproxy.nau.edu/dissertations-theses/cove-mutton-consumption-survey-policy-insights/docview/2471743232/se-2>

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