**What to do with sick animals: A study of pastoralists’ decision-making in the Far North Region, Cameroon**

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**Research Problem**

Pastoralists in the Far North Region of Cameroon seem to manage sick animals in a paradoxical way: the literature describes the long-term goal of pastoralists to be health and longevity of the herd (Serning 1993; Mace 1993; Mace 1993); but they frequently do not remove animals sick with chronic diseases, such as Brucellosis, that can affect fertility of animals and humans.

**Study Region**

![Map of the Far North Region, Cameroon, Africa](image)

**Models of disease and fertility**

Herd members make critical connections between disease and fertility.

- Brucellosis is a problem that is considered to be more serious than lying.- The disease is transmitted to humans through consumption of undercooked milk.- Brucellosis is a disease that can affect the health and fertility of animals.

- Brucellosis is a disease that can affect the health and fertility of animals.

**Fertility Rates & Brucellosis Prevalence**

![Chart showing fertility rates](image)

**Methodology**

Using an ethnographic approach, semi-structured interviews were conducted with 11 herd members. During each interview, herd members were observed participating in the maintenance of the herd. The sample included 21 herds, selected from a larger population of herds in the region. Each herd was visited at least twice to ensure comprehensive data collection.

**Research Questions**

1. Why do herd members keep chronically sick animals in their herd?
2. What impact does keeping sick animals in the herd have on herd fertility?
3. How do herd members manage sick animals with regard to disease and fertility?

**Why keep sick animals?**

Herd members keep sick animals in their herd due to their attachment to the herd and their reliance on the milk and meat for subsistence. Sick animals are considered to be a part of the family and are treated with care. Sick animals are often kept alive to provide milk for the herd members and their families.

**Management of animal diseases**

Nearly all herd members interviewed said they wouldוו’t allow sick animals to remain in the herd to improve the health of the herd.

Three commonly used drugs for treating sick animals in the area are (1) oxytetracycline, (2) diclofenac sodium, and (3) virginiamycin.

**Discussion**

It would seem obvious that keeping sick animals with chronic cases of disease like Brucellosis would negatively affect herd fertility, but this is not the case among the pastoralists of the Far North Region. In the past, it has been well documented that individual behaviors and reactions to disease are related to disease transmission and the impact of disease on the live of animals and people.

**Conclusions**

1. Hesitance in selling sick animals within the herd for economic reasons.
2. Retention of animals with Brucellosis does not have an effect on herd fertility; further supporting the herd members’ decisions to only sell chronically sick animals when the impact of disease is minimal.
3. There are other factors than disease management that influence herd fertility.

**References cited**


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**Study Population**

Pastoralists rely on animals for subsistence. Cattle play a key role in constructing their cultural system and defining themselves as a people. The sample of 21 herds were selected from the herds already participating in the project of the Disease Ecology and Computer Modelling Laboratory (DECML) at OSU. 11 sedentary and 10 mobile herds were selected to see if any significant variations exist between the two subgroups.

**Decision-Making Process of Selling Animals**

- Large herd: [Big cash]
- Small herd: [Little cash]
- Regular animal
- Fat animal
- Small/young animal
- Chick animal
- Free animals, not sold

**Effects of Brucellosis on Herd Fertility**

We found an unexpected statistically significant, positive relationship between Brucellosis prevalence and herd fertility rates.

Exact nature of relationship needs further research.