Nepal Export: Bovine Paratuberculosis Vaccine

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Nepal Geography

- landlocked country between China and India
- 147,181 sq km
- 8 of highest mountains

http://www.haaretz.com/world-news/1.653894
Nepal Population

- 29,033,914 people
- 81% Hindu, 9% Buddhist

http://www.buddhist-pilgrimage.com/nepal.html
Nepal Agriculture

- 28% agricultural land
- 69% of labor force in agriculture
- Subsistence agriculture
- 6.9 million cattle 2003/4
- Greatest amount of cattle in the hills

http://www1.american.edu/ted/ICE/terai.html
Bovine Paratuberculosis

- Weight loss, diarrhea, eventual death
- Signs don’t show until 2 years of age
- Infected when young by ingesting bacteria
- Fecal shedding is major source of transmission

Treatment/Control

- Sanitation and management practices
- Frequent testing
- Cull infected animals

https://www.beefboard.org/eNews.asp?id=13995
Implications in Agriculture

- Decreased milk production
- Decreased fertility
- Unable to cull cattle in Nepal

Hsp70 vaccine

- Does not interfere with bovine TB testing
- Reduces fecal shedding
- Increases life span and therefore productivity
Benefits to Nepal

- Increased productivity and longevity
- Decreased transmission and infection

http://www.hollyrilinger.com/nutritional-pillar-5-eat-good-meat/
Benefits to Canada

- No bovine tuberculosis testing interference
- New vaccine for Canada use
StressMarq Biosciences Inc.

- Supplies recombinant bovine hsp70 protein
- Victoria, BC, Canada

http://www.stressmarq.com/?v=3e8d115eb4b3
Biogenuix

- New Delhi, India
- Distributor of StressMarq BioSciences products

http://biogenuix.com/