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## Department of Atmospheric Sciences Seminar Announcement

Department of Atmospheric Sciences, S.O.E.S.T., University of Hawai'i at Mānoa  
2525 Correa Road, HIG 350; Honolulu, HI 96822 ☎956-8775



# Ranching in a Warming World – How Climate Change Will Affect Cattle Production in the Great Plains

## Dr. Toni Klemm

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Department of Ecology and Conservation Biology  
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**Date:** **Wednesday, October 7, 2020**  
**Time:** **3:30pm HST**  
**Zoom Meeting:** <https://hawaii.zoom.us/j/97454168193>  
Meeting ID: 974 5416 8193  
Passcode: 207183

### Abstract:

Animal agriculture is a major contributor to climate change, but it is also affected by the impacts of climate change, for example by increasing heat and drought. In this webinar, Toni Klemm will connect climate science, ecosystem research, agricultural economics, and sociology, to show how increasing drought and heat affect cattle production, a \$100 billion/year industry in the U.S., half of which is generated in the Great Plains, where his research took place. He and his multi-disciplinary team used climate projections and land cover simulations to study future changes in the climate signal and in the severity and frequency of extreme droughts, quantified the impacts on natural grassland productivity, examined emerging challenges for ranchers to maintain viable operations, and explored social adaptation barriers that make it harder for ranchers to manage in these difficult times.

**Bio:** Dr. Toni Klemm is a postdoctoral researcher in the Department of Ecology and Conservation Biology at Texas A&M University. He received a Ph.D. in geography from the University of Oklahoma studying seasonal climate forecasts, and he earned a M.S. in geography from Dresden University of Technology in Germany, minoring in meteorology.

