

**“Assessing the Impact of Long-Term Climate Forecasting in North Central Florida  
Livestock Producers Using Linear Programming”**

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**ABSTRACT**

Beef cattle production in North Central Florida is constrained by drought and cold temperatures. This paper studies the potential for using improved climate forecasting of El Niño / La Niña ENSO phases to aid ranchers in their management decisions. Ranchers' participation was included through the use of Farming Systems methodologies. Climate models were developed by a consortium of Florida universities in conjunction with the National Oceanographic and Atmospheric Administration (NOAA.) Ethnographic Linear Programming with livestock producers was used to tailor management strategies ranchers could adopt according to El Niño Southern Oscillation or ENSO phases. The worst-case scenario was two consecutive La Niña events and the best was two consecutive El Niño phases. Beef cattle ranchers could use this information to adjust their stocking rates and decide forage systems in order to improve profit or ameliorate potential losses.

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