

Public Abstract

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Title:Response of Bos taurus cattle to fescue toxicosis and heat stress comparing differences by region and breed

Studies were performed comparing differences in adaptation to heat stress in comparing two separate breeds of cattle. These included heat-tolerant Romosinuano and heat-sensitive Angus. Also, within the Angus breed, we compared differences in region of origin and the effect this had on tolerance to the symptoms of fescue toxicosis. We concluded that region of origin has no significant effect on adaptation to heat stress, and that thermo-sensitive breeds of cattle can adapt to heat stress conditions at the same level of thermo-tolerant breeds over time. Although some evidence points towards the fact that endophyte-exposed cattle are more tolerant fescue toxicosis than endophyte-naïve cattle (i.e., feed intake), there is not yet enough evidence to fully support this theory. Finally, heat-tolerant breeds (Romosinuano) may be less tolerant of fescue toxicosis than heat-sensitive breeds (Angus) when both are kept at similar levels of heat stain. However, more research must be performed in order to substantiate these findings.