

## APPROACHES TO CONFIDENCE INTERVALS FOR THE ENERGY REQUIREMENTS OF BEEF CATTLE

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- **ABSTRACT:** *The objective of this study was to propose approaches to the confidence intervals for the net and metabolizable energy requirements for maintenance and for the efficiency of utilization of metabolizable energy for maintenance and weight gain in beef cattle. A simulated population of 100,000 animals was used to demonstrate the distributional properties of the energy requirements. Approaches to the confidence intervals were proposed and demonstrated using the properties of the normal distribution, and using approaches based on anamorphosis and on Taylor's series. A dataset of 158 animals was used to demonstrate the application of the proposed approaches. The results demonstrated the feasibility of use of such approaches, which are relevant tools for the practice of inductive statistics and for the inter- and intra-experimental comparisons.*
- **KEYWORDS:** *energy efficiency, inductive statistics, metabolizable energy, net energy, nutrient requirement*

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