Title: Comparing Two-Step Weaning Methods to Traditional Weaning Methods in Beef Cattle

Authors/Affiliation: Braden Letourneau / T. Bradford M. Ed.

Abstract:

Stress during the weaning process of cattle production can cause loss for the animal and the producer (Cole, 2023). There are different weaning methods to choose from to reduce this stress (O'Loughlin, 2014). Plasma cortisol levels is one significant sign of stress in cattle. Cortisol can be measured and understood to quantify the amount of stress present in an animal at different times (Proverbio, 2013). This study looks at a two-step weaning process to establish the benefits to the animals and the producers. According to Ohio State University there are many indicators that an animal may be stressed including movement and vocalization (Alverado, 2023). This study establishes a rubric grading system for each of these indicators and compares both weaning methods. There are 26 cow calf pairs that are used in this model split into a control and tested group. The tested group utilized nose flaps on the nasal septum to reduce the nursing prior to physical separation. Nose flaps were in for seven days and resulted in quieter weaning with less movement. When looking at average daily gain within these time frames there is a significant decrease in the amount of gain in the control calves during the stressful weaning process.