2. Effect of feeding system on dry matter intake, gain and carcass characteristics of beef steers. W. A. Phillips and D. L. VonTungeln, USDA-ARS Grazinglands Research Laboratory, El Reno, OK 73036.

Yearling steers (N=81) were stratified into three groups based on BW and randomly assigned to one of three feeding system treatments. The objective was to determine if feeding system used to record individual feed intake over a 120 day finishing period affected dry matter intake, animal performance or carcass characteristics. Two of the systems, Pinpointer (P) and Calan headgate (H), were used to measure individual feed intake. The third system (Control; C) measured feed intake for the pen by using Calan gates, but not assigning steers to specific gates and leaving the gates unlocked. The experiment was initiated on November 4 and terminated on February 4. Body weights were taken at d 0, 14, 28, 56, 85, 112 and 120. At the end of the feeding period steers were transported to a commercial slaughter facility and carcass data were collected. Three pens were used for each system. Gain, BW and carcass data were analyzed as a completely randomized block design with a model containing feeding systems (SYSTEM), initial BW (SIZE) and the two-way interaction. The residual was used to as the error term and animal was the experimental unit. Dry matter intake was analyzed with the same model as described above, but pen was the experimental unit and SYSTEM*SIZE was used as the error term. Mean BW for the Heavy (H), Medium (M) and Light (L) were 407, 370, 333 kg, respectively. SYSTEM had no affect ($P>.10$) on weight gain or carcass quality grade, but carcass yield grade tended ($P<.10$) to be higher for the steers fed with the H system as compared to the C or P systems. Dry matter intake during the first 14 d of the experiment was lower for the steers fed by the P system as compared to the other two systems, but mean daily DM intake for the feeding period was not different ($P>.10$) among the tree SYSTEMS. It was concluded that feeding systems used in this experiment to record individual feed intake for a 120-d feeding did not alter overall DM intake, animal performance and carcass characteristics as compared to steers fed as a group.