

**378 Using sentinel pens with performance testing equipment as a tactical management tool. R. L. Korthals\*, Osborne Industries, Inc., Osborne, KS.**

An experiment was run to evaluate the effectiveness of Feed Intake Recording Equipment (FIRE®) performance testing stations as a sentinel tool for monitoring swine production. Animals in pens with conventional feeders were compared with animals fed using FIRE® feeding stations. A randomized complete block test design was used with a replication of treatments over time. Four groups of animals, two of barrows and two of gilts were used in each treatment replication. Average daily feed intake (ADFI), average daily gain (ADG), and feed conversion (FC) were compared. No significant difference in ADFI, ADG, or FC were noted between FIRE® feeders and conventional feeders. There was an interaction effect in ADFI for replication \* treatment. Replication 1 with conventional feeders had higher ADFI ( $P < 0.02$ ) than replication 2 (6.20 kg/day vs. 5.22 kg/day), but neither was significantly different from the FIRE® feeders (5.72 and 5.71kg/day). Differences in ADFI and ADG were noted for sex ( $P < 0.02$ ), but no significant difference was noted in FC between barrows and gilts.

The amount and detail of data presented by sentinel testing enhances the understanding of animal production. For example, data from a FIRE® performance testing station during this test provided daily feed intakes and estimated average animal weights as shown in the table. Further analysis of day 18 data indicated that the standard deviation on animal weights for that pen was 3.5 kg. The overall ADG was also evaluated, and found to range from 0.80 to 1.11 kg/day with a mean and standard deviation of 0.94 and 0.08 kg/day respectively for the individual animals in this test. This level of "real-time" information creates new opportunities for improved tactical management, such as adjusting ration formulations for each subsequent batch of feed.

Day	14	15	16	17	18	19	20	21
ADFI (kg/day)	1.707	1.768	1.784	1.798	1.789	1.669	1.797	1.865
Weight(kg)	31.3	32.6	33.5	35.0	34.1	35.1	35.1	36.4

**Key Words:** Feed Intake, Electronic Identification

*J. Anim. Sci. Vol. 76, Suppl. 1/J. Dairy Sci. Vol. 81, Suppl. 1/1998. p. 98, Abstract #378*