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Economic and Performance Benefits Associated with Use of Gilt Development Facilities and Segregated Parity Management.

Jeff Mencke, Isabelle Moreau, Jack Keane
The Hanor Company

Introduction

The Hanor Company Inc, operates a 2,644 place Gilt Development Unit (GDU) and two 10,944 multisite sow farms in Northwest Oklahoma. The sow farms are farrow to wean and produce 3 week old weaned pigs, which are delivered to off-site nursery and finisher sites for subsequent sale as PIC breeding stock and slaughter pigs. In operation since September 1996, the system currently produces 24 PWSY.

General Information

Litter size from parity 1 and 2 females bred on first through fourth heat cycle ($n > 2,500$) was used to evaluate the effect of the Gilt Development Unit (GDU). Analysis of variance was used to analyze piglet output for weekly matings and farrowings. Statistical Process Control Measures were used to evaluate the effect of Segregated Parity Management on reproductive performance. The effect of Segregated Parity Management on operating cost was evaluated by partial budgeting techniques and will be presented.

Gilt Development Unit

The off-site GDU consists of 1,500 pen spaces and 1,144 gestation crates in two different rooms. It is designed to control gilt age at breeding through heat cycle management. This facility allows for the use of customized diets, gilt acclimation to gestation crates and specialized labor tasks including regular estrous detection. The sow farms consequently receive a consistent and predictable flow of

replacement gilts of known estrous cycle status. This results in an observed increased number of piglets ($p < 0.0?$).

Segregated Parity Management

A 10,944 sow farm consisting of eight breeding gestation barns and four farrowing barns was operated as 4 x 2,736 sow quadrants with an inventory of 2,600 females per quadrant. Quadrants were described geographically as the NE, SE, NW and SW quadrants. The building design provides the opportunity to segregate the sows according to parities, with P1 females (gilts) occupying the SW quadrant, P2 females in the NW quadrant, and P3+ females in the NE and SE quadrants. Specialized labor, and standard management practices have had a positive influence on weaned pig cost and consistent output. In summary the construction and management of a GDU coupled with the implementation of Segregated Parity Management positively impacts the output, efficiency and financial outlook of large Multi-Site Sow Facilities.

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