

Setting industry benchmarks for effective gilt development: 2) Application of MATRIX™ to meet production targets

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The objective of this study was to demonstrate the impact of MATRIX™ on improved reproductive efficiency on a modern 3200 farrow-to-wean sow farm. MATRIX™ is an orally active progesterone-like compound that can be used to effectively synchronize estrus in sexually mature (known cyclic) gilts and aids in maximizing farrowing crate utilization, number and age range of pigs weaned per week, and thus reduces variation and increasing overall productivity (Intervet, Millsboro, Delaware). MATRIX™ efficacy is being assessed over a 52-week period with regard to: 1) numbers (percentage) of gilts mated each week relative to breeding targets, 2) size of eligible (recorded heat-no-serve (HNS)) gilt pool needed to achieve weekly breeding targets, 3) percentage of Matrix treated gilts bred, 4) timing of breeding after Matrix withdrawal (targeting ≥85% of gilts be bred during a 5-day (Tuesday to Saturday) period, and 5) fertility based on adjusted farrowing rate and gilt litter size.

Preliminary results indicate MATRIX™ was effective in synchronizing estrus in gilts (n=160) treated with MATRIX™ (15 mg/hd/day MATRIX™ x 14 days), with 98% of gilts bred in the Tuesday to Saturday 5-d period after MATRIX™ withdrawal. Additional advantages are expected to be: predictable use of higher quality semen; improvements in litter size by ensuring full feed intakes in the cycle before breeding; consistent achievement of gilt breeding targets from a smaller pool of eligible gilts in the GDU; reduced variation in age of pigs weaned.

Implications:

The combination of effective GDU management, and use of MATRIX™ to synchronize estrus in known cyclic gilts, can make an important and cost-effective contribution to breeding herd performance.