

Gilt management for improved production

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PigChamp 2002 data shows that on Canadian swine operations the average herd female inventory is 1046 with an average replacement rate of 58.7%, (<http://www.pigchamp.com/benchmarking.asp>). From these data, it is evident that an excessively large pool of cycling gilts is required to meet these replacement requirements. Therefore, it is essential that a producer adopt a gilt management program that will meet replacement targets from a smaller pool of gilts with improved lifetime breeding potential.

An on-going study is examining the relationship between age at puberty and lifetime performance in Camborough 22 and L42 gilts. Gilts received 20 min direct exposure to an epididymectomized boar daily, starting at 140.0 d of age. Gilts attaining puberty by 180d of age were deemed to be "select" gilts and classified as Early (EP), Intermediate (IP) and Late (LP) with respect to age at first estrus. Gilts were deemed to be "Non-select" (NP) if first estrus was not shown by 180 d of age.

As a percentage of the total number of gilts on inventory at the start of stimulation in each group, fewer "Non-Select" gilts were bred than any of the classes of "Select" gilts. Consequently for NP gilts, pregnancy rate, farrowing rate, weaning rate and the percent rebred after weaning after first parity (expressed as a % of gilts originally on inventory) were lower than for EP, IP or LP gilts. Considering only those gilts successfully weaned as parity 1 sows, class of gilt affected ($P < 0.02$) the percentage of animals pregnant as parity 2 sows (EP: 94.2; IP: 87.2; LP: 91.0; and NP: 76.6 %). Furthermore, EP and IP gilts accumulated fewer non-productive days (NPD) until rebreeding at parity 1 than either LP or NP gilts (EP: 50.5; IP: 58.5; LP: 75.5; and NP: 71.1).

Implications:

In summary, it is predicted that if a producer were to implement an efficient gilt management program on farm, it would ultimately result in improved production through reduced sow replacement rates, improved sow fitness, decreased sow death losses, increased labour efficiency and space utilization.