WEAN TO FIRST SERVICE INTERVAL

The factors that influence your wean to first service interval on farm and how you can ensure that you are maximizing your sows productivity.

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**Wean to first service interval** is a key performance indicator (KPI) that drives farrowing rate and litter size in subsequent litters. The sooner a weaned female returns to estrus, the more fertile she is and the more eggs she will shed, thus improving the rate of weaned females mated that achieve pregnancy and the size of the next litter she will farrow.

It is critical that weaned sows cycle quickly after weaning to optimize the farrowing rate and litter size in her subsequent litter. Farms with lower wean to first service intervals have more sows bred by 7 days post weaning, higher farrowing rates, lower numbers of re-breed females to find and manage, and produce more pigs.

**Several factors can affect how soon a sow cycles after weaning:**

**Feed intake while sows are lactating in farrowing**

The feed intake of a sow during the first 7-10 days after she gives birth is one of the biggest factors affecting how quickly a weaned sow comes into estrus. Feed intake during this time frame is directly correlated to the number of eggs produced and their survival in the uterus. Sows should be provided ad libitum access to feed from the day she gives birth. Feed intake target should be 1 lbs (0.45 kg) of feed for every pig the sow weans plus 4 lbs (1.8 kg) of feed for her body maintenance. A sow weaning 11.5 pigs/litter should be eating an average of 15.5 pounds (7 kg) of feed per day with a lactation length of 19-21 days. Too warm of room temperature in farrowing will adversely impact lactation feed intake for the sow. Once all sows in the farrowing room are 7 days post farrowing, the temperature should be reduced back down to the level the sow experienced in the gestation barn, with care being given to not create air drafts that will chill piglets.

**Water intake while lactating in farrowing**

Water is an essential nutrient and too often a forgotten variable to manage optimally. Sows only drink a few times per day for a few seconds each time. Water needs to be readily available at good flow rates and within easy reach of the sow. Water flow targets in farrowing should be a minimum of 2 quarts (0.9 liters) per minute at no higher than 30 PSI. Sows will normally drink each time that they get up in farrowing. Farm management should get sows up at least once each day and observe that her nipple water source is properly working.

**Lactation length**

As lactation length increases, the days for a weaned sow to come into estrus should decline. This occurs because the hormone levels inhibiting the onset of estrus decline as the lactation length increases. Lactation lengths between 19-23 days will normally result in most sows coming into estrus between 4-6 days post weaning. Sows with lactation lengths under 18 days will likely be slower to come into estrus.

**Feeding sows between weaning and the onset of estrus**

Freshly weaned sows need more feed to replenish their body reserves. Feed intake target between the day of weaning until being mated should be 1.5-2.0 times the farm’s normal gestation maintenance feed level (based on body condition). If the farm’s maintenance feed level is 4.0 lbs (1.8 kg), then the wean sow should be getting fed 6-8 lbs (2.7-3.6 kg) per day post weaning. Farm management needs to ensure sows are fed the day of weaning out in the breeding barn. inadvertently, it may occur that ad libitum lactation feed systems are turned off the day prior to weaning to help empty the farrowing feeder, and feed boxes may not be turned on prior to feed dropping in the breeding stall to prevent water dams in troughs.
**Boar exposure**

Freshly weaned sows need to have boar exposure starting the day after being weaned to stimulate their hormonal systems. Target a minimum of one hour per day of boar exposure for weaned sows using multiple mature, hormonally active boars. Optimal pheromonal activity occurs between boars and weaned sows when placing two or more compatible boars in head alleys where they can have nose to nose contact with the weaned sows.

Heat checking

Breeding Technicians should start performing estrus detection to groups of weaned sows on day 3 post weaning. Commonly 2-4% of weaned sows will be in estrus on day 3 post weaning. There are a variety of factors that could have contributed to their early onset of estrus; were nurse sows, had pigs weaned early, were weaned at above normal lactation days, or might just be very fertile. If farm records show many sows are being bred 18-22 days post weaning, these early cycling females may have been missed by Breeding Technicians. Coach your Breeding Technicians to mark weaned sows showing signs of estrus but are not yet fully ready to be mated. This will communicate to the person heat checking the following day to slow down and spend a little extra time with such females to determine if they are ready to be mated. Also verify that when heat checking, that the Breeding Technicians are working in the opposite direction from the fan end of the barn (start at fans) to prevent refractory estrus issues from occurring in sows further up the line from where they are working at (this is for negative pressure barns).

Heat checking is one of the most important tasks performed by breeding personnel. Ensure that only well trained and experienced personnel are assigned to perform this important task.

**Records utilization**

Wean to first service interval and percent of weaned females bred by 7 days are common variables reported on computerized record keeping systems. Both are valuable in monitoring how timely weaned sows are being bred back post weaning. Review these variables on the herd overall and by parity to focus upon in optimizing wean to first service intervals. It is common that parity 1 weaned females are a little slower to return back in estrus but feeding and boar exposure strategies can be modified to target these females and ensure they come back in estrus earlier.

To optimize your farms productivity levels and wean more pigs per year, it is essential to keep your wean to first service interval low. Please reach out to your Fast Genetics Account Manager or Technical Production Specialist if you would like some assistance in optimizing this area of your farm.

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References available upon request.