Reproduction

Synchronising breeding females

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It is the full understanding of the endocrine events that take place during the reproductive cycle that can help us determine which actions could be helpful to get the best from our sows.

Synchronising breeding females in batches

Altrenogest is a key player in generating homogenous batches of breeding females as it synchronises oestrus in replacement gilts. But Altrenogest also:

- Increases pregnancy rate.
- Increases prolificacy: +0.5 piglets/sow.

In sows, postponing oestrus after weaning with Altrenogest has been tested in several studies using different durations of treatment and different times of initiation of treatment around weaning. While there is no consensus on the optimal treatment strategy, some have reported positive effects on ovulation rate, or farrowing rate or litter size.

There are situations when the expected changes in the ovarian function leading to oestrus and ovulation fail to occur on time. Given the sequential dependence of the follicles on FSH (to grow from 2-4mm) and LH (to grow from 4-8mm), an injection of a gonadotropin such as PG 600, with its double hormonal activity and a long half-life, has the potential to correct the above mentioned delays.

Reducing non-productive days with exogenous gonadotropins

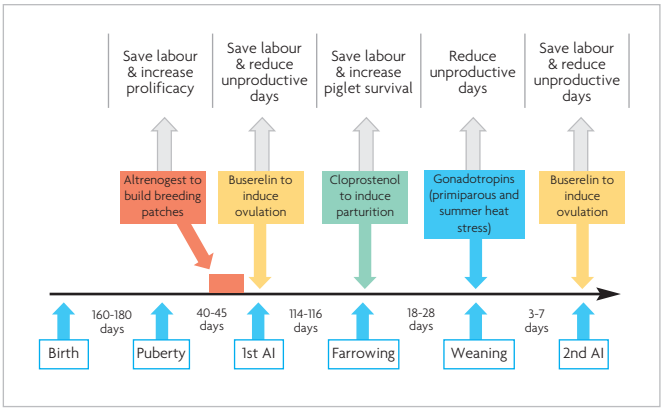
Several studies have clearly established the reproductive performance associated with the use of PG600:

- Induction of puberty: Injection of PG 600 to pre-pubertal gilts (older than 150-160 days of age) initiates a synchronised oestrus around four days later in a large (around 70-80%) proportion of the gilts, followed by ovulation.
- Treatment of delayed puberty: Due to the variability in the age at puberty, some gilts may not have displayed puberty when older than 180 days. Administration of PG 600 to this sub population induces puberty in 96% of them within 3-4 days, followed by ovulation in all of them.
- Improvement of reproductive performances of primiparous sows: Primiparous sows are more likely to display long and variable wean-to-oestrus intervals. A strategic use of PG 600, injected at weaning in this sub-population has been shown to allow primiparous sows to achieve the same high reproductive performance as multiparous sows.
- Correction of problems triggered by heat stress in summer: In all sows that are at anoestrous on day seven after weaning, injection of PG 600 has been shown to trigger oestrus and ovulation within three and five days respectively.

Inducing and synchronising ovulation with a GnRH agonist

Ovulation induction has important benefits:

- More efficient labour by focusing away from heat checking and multiple inseminations.



- Favours buying higher quality genetic boars and semen.
- More precision on insemination provides longer lifespan for the sow
- Using fewer boars per batch, with higher genetic potential, will put you on the right direction to higher productivity through piglet uniformity.
- Reduction of non-productive days.
- Grouping of farrowings.

Timing is really important, in gilts, injection of 10µg buserelin at 120 hours after the last Altrenogest meal, combined with a single insemination 30-33 hours later, maintains farrowing rate and prolificacy. Furthermore, injection of 10µg of buserelin to weaned sows at 86-89 hours after weaning, followed by a single fixed time insemination 30-33 hours later also generates similar farrowing rate and litter sizes.

Optimising piglet survival at farrowing by induction

A single injection of 175µg of Cloprostenol (Estrumate or Planate) to sows between days 112-114 of pregnancy results in farrow 21-23 hours later, with about two thirds of the sows farrowing in the 25-32 hour time window and more than 90% between 16-34 hours post injection. Induction of farrowing by injecting Cloprostenol should not be attempted before day 111 of pregnancy as delivery of immature piglets is always associated with increased mortality rates.

Parturition induction has numerous benefits:

- It optimises use of the labour force for supervising the smoothness of the birth process.
- It minimises the proportion of farrowing occurring during weekends or at night.
- It uses optimal conditions for adoptions.

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