

Welcome to the March edition.

## Puberty of Gilts

Puberty is defined as the time at which ovulation and oestrus first occur in association with normal development of ovaries, usually gilts reach puberty between 150 and 220 days-of-age. Puberty attainment in the gilt represents the onset of reproductive capability, since the first behavioural oestrus normally coincides with pubertal ovulation. In gilts the aim should be to stimulate the early occurrence of puberty, with the skipping of first heat, the gilt first mated/inseminated, at the second/third oestrus, at about 220-240 days of age or as breed company advice. Early puberty is considered a good indicator of reproductive capability, associated with increased lifetime fertility and decreased production costs.

Onset of puberty depends on a variety of factors such as: age, liveweight, growth of the gilt and extrinsic factors such as genotype, nutrition, season, environment(light), boar contact, and stress factors. Stress factors may both stimulate and inhibit puberty attainment, the response being dependent on the type and level of stress applied. The best known stress factor in pigs is that of transportation, this form of stress may not be effective until the gilt is very near puberty. Other forms of stress are mixing strange gilts, and relocation, boar contact itself may also include a stress component.

The single most important management factor to stimulate early puberty in gilts is boar exposure. The boar effect is strongest when females are exposed to the smell, sight, touch, and sound of a mature boar, and it is weaker as the intensity of each of these incentives decreases. Consequently, the boar effect is greatest with direct contact using a mature, vasectomised boar. Interaction of the boar with the females for the appropriate duration of time will produce the greatest effects on puberty advancement and oestrus expression. Exposure of peripubertal gilts (5-6 months old) to a mature boar for 15 minutes a day appears to provide an adequate stimulus.

From anatomo-physiological perspective gilts are defined as sexually immature if they have a poorly developed uterus that is located ventral to the bladder, the uterine horn is less than 1 cm<sup>2</sup> in cross section and the ovary is less than 3 cm on the greater side.



Picture 1 -Ovary small follicles

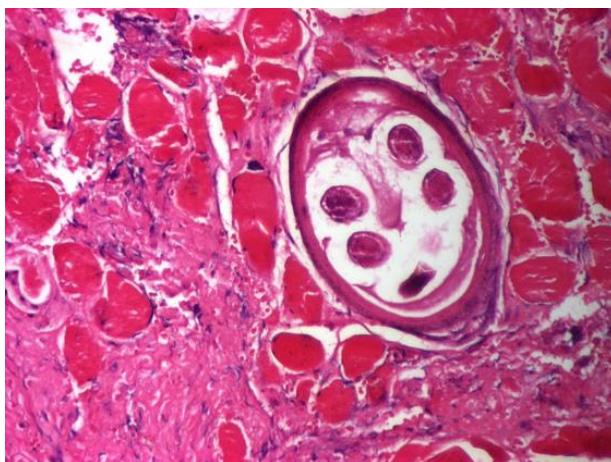


Picture 2 - Ovary large follicles

Puberty is determined on farms by means of boar exposure and detection of signs of oestrus (swollen and red vulva, interest in boars and standing reflex in response to back pressure). Other possible ways of determining puberty are analysis of the level of the progesterone and ultrasonography by which we can detect ovaries and their structures and the uterus, as those structures, in the transition from PRE to PUB status, grow strongly in the prepubertal period.

## Trichinella

Trichinella Spiralis is a parasitic worm (nematode). It can infect various mammals including pigs and humans. It is spread by eating meat that contains the encysted larva.



*Trichinella Spiralis in Muscular Tissue    Image from Researchgate*

It is widespread throughout the world and common in some EU countries. There have been no human cases reported from consumption of UK meat for over 30 years but in order to export meat from the UK into the EU a declaration of controlled housing must be made OR the pigs must be tested for Trichinella at the abattoir.

From the beginning of 2023 as part of the Red Tractor visit your vet will perform a Controlled Housing/Trichinella Risk Assessment and each unit's status will be recorded on the QVR. Indoor units that are Red Tractor assured are usually classed as controlled housing but if there are any animals present on the unit over 5 weeks of age with outdoor access then the risk assessment will be performed and a status declared.

The status of the farm can then be marked on the eAML2 license when pigs move and as long as any incoming pigs come from controlled housing onto a unit that is also controlled housing then the eAML2 box can be ticked when the animals go to slaughter and the meat does not have to be tested prior to any export.

It is not a non-conformance if the unit is not classed as controlled housing it simply means

that testing must occur prior to any export of that meat.

Please ask your vet or call into the practice if you would like any further clarification regarding this testing and what it means on your units.

For more information see AHDB website/Red Tractor Guidance Notes

**The Long View from History – an occasional series:**

### Life As A Swineherd



Back in the Middle Ages there was a system known as pannage whereby pigs were grazed in the forests. These were far more widespread than now. The system persists in parts of the New Forest today.

Pigs were turned into the forest under the care of a swineherd to take advantage of plentiful supply of acorns and mast. The season was strictly limited to prevent excessive damage. In the Doomsday Book the value of woods was partly given by the number of pigs they would support. Additionally, the swineherd was responsible for any damage swine caused by straying back onto the common pasture.

As the woods belonged to the manor or the crown there was a levy payable on the proportion of pigs slaughtered-levies go back a long way in history! By the time of Henry V111 this was a flat fee of 1d to 11/2 d per pig grazed.

An account of the wages of a 12<sup>th</sup> century pigman was one suckling pig a year, the entrails of the best pig slaughtered and the tails of all the pigs slaughtered. Tail soup was considered a delicacy-perhaps this is a tradition we should seek to revive!