

St David's Pig Newsletter

May 2010

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St David's Pig Practice

We are a part of the St David's Group based near Exmouth in Devon. The group comprises – a Farm Animal Practice, a Poultry Practice and an Equine Practice.

The St David's Pig Practice has been established for 30 years and covers the south of England. Tony O'Loughlin runs the practice assisted by Jenny Smith. We have now employed Dr John Carr as our specialist pig consultant. John is very well known within the UK industry. He was previously a partner in the Garth partnership in Yorkshire before

moving to the USA. John now provides international consultancy in many countries around the world. His role with St David's Pig Practice is to provide knowledge and support to our expanding client base. He will be with the Practice for 2 weeks every quarter and will be visiting farms and running client meetings.

The focus of the practice is on Pig Health. This is achieved through optimising the pig environment and ensuring the farm has the correct pig flow. Our farm visits examine every

aspect of the pig environment and are aimed at focusing the stockperson on the needs of the pig. A pig farm must maintain optimal flow at all times to maximise output. John has developed a series of spreadsheets that allow us to examine pig flow and to focus the farm on maintaining this. He measures the farm success by output rather than pigs/sow. The farm is paid on output. Empty finishing spaces cost money. Thus all factors that contribute to this must be examined. This takes the focus beyond pigs/sow and opens up the whole farm for examination.



It's a problem all over the world... but it doesn't have to be a problem on your unit

Impact of summer infertility on the herd output? There should be NO impact on output, say vets John Carr, Tony O'Loughlin and Jenny Smith, of the St David's Farm Practice in Devon

Now is the time to start planning to avoid this year's summer infertility problems. The physiological causes of summery infertility and autumn abortion syndrome are not understood. Obviously they have something to do with the summer season's heat and light patterns. The same events are seen in both hemispheres and particularly in outdoor pigs, where the effects can be particularly devastating in hot sunny summers.

However, the issue is not the cause of summer infertility, but how are you going to cope with it. While the exact timing may be difficult to predict, the fact is that what happened last year, and every other year, is very likely to happen again this year.

The first essential is to correctly define the batch. The problem on many farms is determining the first day of the batch. It should be the day after weaning. Thus for a Thursday weaning, the batch starts on a Friday. Then all the sows for the batch should be bred over the next seven days – by the following Thursday. All these sows will



HOW TO CALCULATE BATCH FARROWING RATE PERCENTAGE

Batch farrowing rate percentage =

$$\left(\frac{\text{Number of sows that actually farrow in a batch}}{\text{Number of females actually bred in the same batch}} \right) \times 100\%$$

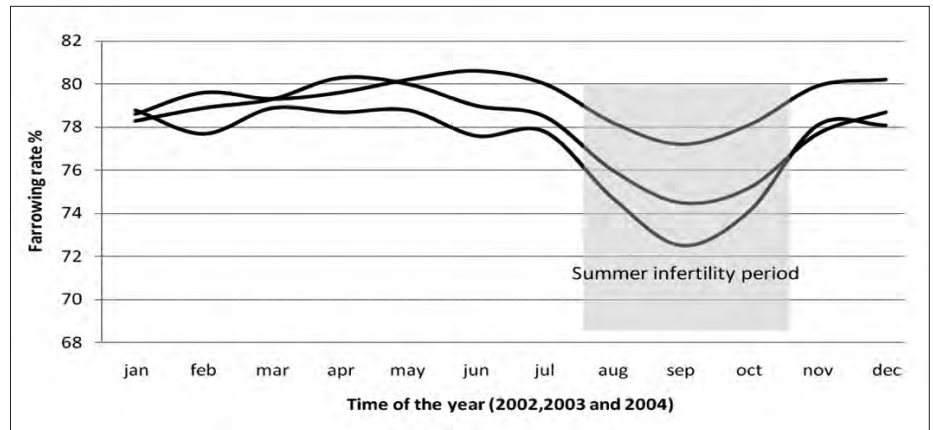


Figure 1. Farrowing rate by month bred for the northern hemisphere (North American data) and the southern hemisphere (Western Australian data).

then farrow in a batch, 115 days (112-120 days) later. This will be a Friday (following a Tuesday mating).

Because of the natural spread of the gestation period, sows should enter the farrowing area at least a week before expected peak farrowing date to ensure that all sows in a batch farrow in the farrowing area.

When will it start?

When will it start? Look at your records. But the records need to reflect your batching programme not vaguely some

ancient concept of a "month". Calculate accurately your batch farrowing rate. Once the timing of your farm's summer infertility issue has been established you can plan the farm's breeding. Autumn abortion may be more difficult to predict. But the same principles can be used. If you acknowledge that more sows will abort in the autumn than normal, ensure that there are more sows pregnant. There is no excuse not to maintain output per farrowing place

In the northern hemisphere, farms tend to have summer infertility from breedings mid-July to October. This affects farrowing in November to February and finishing from April to July.

A key component to summer infertility and autumn abortion syndrome is accurate pregnancy diagnosis. Real time ultrasound pregnancy diagnosis is an integral component to accurate batch planning.

How to resolve summer infertility

Minimise the impact of summer infertility by having the lactating, breeding and gestating sows in an ideal body condition. Ensure there are no management or environmental failures over the summer months. Note it gets cold overnight in the middle of summer – do not skimp on bedding. If the farrowing rate falls, breed more females – gilts, culls and, yes, if necessary, repeats (as a last resort). Coping with summer infertility is about planned gilt pool management. But then, when is pig farming not about gilt pool management? Having a lower farrowing rate in summer is not a crime – it is normal. The only purpose of recording the farrowing rate is to determine the number of sows to breed. Do not make it determine profit and loss.

Discuss your summer infertility requirements with your genetics company. Plan well ahead. Biosecurity issues should specify the gilt input ages onto your farm.

If you use a live PRRSv vaccine, it is imperative the vaccinated gilts have stopped excreting any virus before they enter the main herd. For example, if you buy your replacement gilts around 60kg, they need to start arriving on your farm mid-March – well before the expected summer infertility issues.

Post-summer breeding

After summer, the herd size will be too great for the winter breeding period. Use this time to resolve parity issues through prudent culling programmes. Do not over-breed in an attempt to make up the losses incurred because of poor planning in the spring and summer.

Effect of summer infertility on the herd output? There should be no impact on output. But if you drive the herd based on adult animals – by non-productive days, pigs-per-sow-per-year, litters-per-sow-per-year for example – you will have a lower income in the winter. Then in the spring you will have

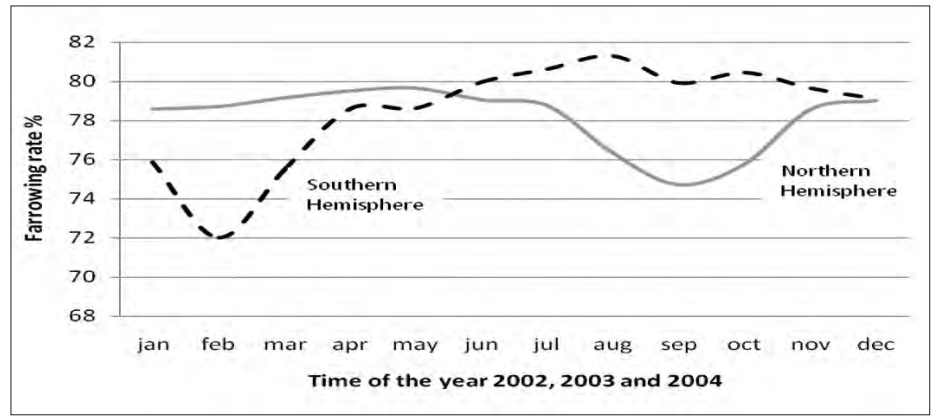


Figure 2. Farrowing rate for three years from the northern hemisphere (American data). The graph clearly demonstrates that summer infertility occurred at the same time, although the impact on the North American herd varied year on year from a 3 percent drop to a 10 percent drop in average farrowing rate.

When is your infertility period?
Place a 1 in which hemisphere you farm
North South Expected reduction % farrowing rate
Guide: to period when breeding results in a reduction in farrowing rate

Important dates in the life of your extra future breeding gilts
These dates allow you to plan the introduction of the extra breeding gilts

Event in the life of your future gilt	Date
32 weeks old - optimal breeding age	7/15/10 to 10/31/10
25 weeks old - 1st Boar exposure	5/27/10 to 9/12/10
15 weeks old - 60 kg	3/18/10 to 7/4/10
10 weeks old - 30 kg	2/11/10 to 5/30/10
Birth	12/3/09 to 3/21/10

Today's date

The pig flow model changes

Required Farrowing places per batch	60	per batch
Batch time	1	weeks
Normal farrowing rate	80	%
Expected summer farrowing rate	70	%
Normal breeding target	75	
Minimum summer breeding target	86	per batch

Extra breeding gilts required per batch
Suggested extra gilts to start with per batch % over requirement to allow for some rejection
An extra gilts will be required over the summer period
This is on top of your normal gilt requirement
Note these gilts should be clearly identified and sold after 1 farrowing
The extra unwanted gilts should be sold with the normal finishing group

Figure 3. In the example above, the farm's summer infertility problem historically starts mid-July and extends to the end of October. In order to compensate for the low farrowing rate normally experienced in summer, more gilts can be added to the breeding pool from the farm's genetics supplier or from its own finishing pigs. For more information, please follow link: <http://www.portec.com.au/the-pig/health-farm/productionmgmt/records/pigflow/batching/summerinfertility.html>

overstocking from the excessive numbers bred to compensate for the summer infertility. This will lead to increased incidence of diseases, reduced welfare and possibly breaking the law in terms of stocking densities.

As the spring progresses the herd size should increase, the output per

farrowing place should see no change. Even if the growth rate slows down as the finishing pigs' appetites drop in the hot summer, the batch just needs more time to get to the desired slaughter weight. The building plan of the farm should accommodate this requirement, or the farm will be forced to sell lighter pigs, increasing costs.

Meet the Vets

Dr John Carr BVSc DPM PhD MRCVS

John is an internationally recognised pig medicine specialist. He spent 17 years in pig practice in the UK before moving to the USA to become Assistant Professor at Iowa State University. He is based in the USA and provides international consultancy globally from Korea to Australia.

John has been involved with St David's for many years through his consultancy for the Hermitage-Seaborough group. We both saw an opportunity to develop a pig practice whose focus was pig health through understanding of the environment and pig flow.



Jenny Smith BVSc MRCVS

Jenny joined the practice to do purely farm animal work. Her long term goal is to be a specialist pig veterinarian. She currently does routine pig visits and does our post mortems. She also looks after our pet pig population. She is keen to progress much further in the pig industry.



Tony O'Loughlin BVSc MRCVS

Tony is one of the directors of the St David's Farm Practice. He manages the practice and is in charge of the Pig Practice. He looks after the Hermitage-Seaborough boar stud and multiplier units. He has been involved locally with the Exeter BPEX pig discussion group.

Paula Rogers

Paula joined the practice 12 months ago and is now the Practice Manager. She previously managed the Hermitage Seaborough boar stud at North Tawton. Hence she has plenty of experience with pig clients!