

NADIS disease bulletins are written specifically for farmers, to increase awareness of prevalent conditions and promote disease prevention and control, in order to benefit animal health and welfare. Farmers are advised to discuss their individual farm circumstances with their veterinary surgeon.

Gilt Infertility

In a normal year, an established pig breeding herd will replace 40% of the sows with gilts. This means that at any given time, gilts will make up 15% of the servings and, thus, any problems with gilt fertility will have a significant impact on herd production. This effect will exacerbate the lower litter size that would normally be expected from gilts compared to the sow herd.

The following is a resumé of some of the more common faults and problems that occur with gilts that lead to low production and poor fertility:-

- 1) Inadequate health monitoring of stock, integration and acclimatisation. There are a whole range of diseases to which incoming gilts may be naïve. If the gilt meets a disease challenge in the immediate period prior to or around service, it is likely to disrupt breeding capacity. Serious pneumonia around puberty can stop gilts cycling, in some cases for life. Parvovirus and Erysipelas can be specific reproductive diseases and are seen in gilts that are inadequately vaccinated. PRRS (Blue Ear Disease) can have a similar effect.

Producers should liaise closely with their veterinary surgeons to ensure that incoming stock are of known health status, that it is compatible with the recipient farm, that vaccinations are appropriate and correctly administered and that suitable acclimatisation procedures are followed. Isolation on entry may protect the farm from initially unknown infectious agents that that gilts may be carrying.

- 2) Age and weight at service. As the trend over the last 30 years has been for leaner and leaner slaughter pigs, the mature size of the adult has increased. The gilt at any given age and weight is now less mature than it was and this can have effects on fertility and longevity. F₁ hybrid gilts should be at least 7 months old and weigh a minimum of 125kg prior to service. This will normally coincide with the third and fourth heat period.
- 3) Where natural service is practised, gilts tend to be served with young boars, which themselves may have lower fertility levels. This problem can be overcome by cross serving – particularly using older (though not too large) boars or with AI, although some stockmen have considerable difficulty “locking in” a catheter in gilts. Only competent and experienced stockmen should undertake AI in gilts and the process can be assisted by ensuring that the gilt has had a natural service – be that by a normal working boar or a vasectomised boar – prior to insemination i.e. use AI as the top up service.
- 4) Timing of Service. Weaned sows will come on heat at a predictable time. Maiden gilts do not. It is a good idea to observe and record all heats in gilts from arrival to provide an indication as to when to expect a service heat. Batches of gilts should be

checked for heat at least once per day with a boar. Serving late in the heat period risks introducing ascending infection and is a common cause of low litter size.

- 5) Discharges. Occasionally, maiden gilts are seen to discharge when on heat. It is important to differentiate a normal oestrous discharge – clear or slightly milky mucous – from a purulent pathological discharge. There is little known about the development of the latter but, in most cases, may be the result of unsupervised service (even in a bacon house) or environmental contamination in poor conditions. Rarely, the problem will be seen in groups of gilts in clean conditions where no boar contact has occurred. Such cases should be fully investigated with laboratory tests; recent reports from the US has implicated Erysipelas as a cause of such problems.

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