

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.

Preweaning Mortality in Outdoor Herds

An inevitable constraint imposed on the outdoor herd is the inability to supervise farrowing and to impose close supervision on the sow and litter, when compared to the indoor herd. Despite this fact many outdoor herds record lower mortality and lower stillbirth rates than their indoor counterparts. Of course, hidden within this is the fact that counting can be difficult and in many outdoor units mortality figures are simply underestimates of true levels of death. Some dead/stillborn pigs will actually be eaten by sows whilst others become buried in bedding and many never be found and recorded.

Whilst piglet disease is generally much less outdoors there are a range of causes of death which the stockmen, both on a day by day management basis and on a planning basis, can have a great influence.

As in the indoor herd, but probably even more so outdoors, early death is initially related to birth weight. Piglets below 750gm have very little chance of survival. Whilst many factors such as age of the sow, genetic influences and litter size have an impact on birthweight, nutrition of the sow is critical. Placenta growth – on which piglet growth depends – occurs in the first half of pregnancy. Underfeeding at this time will impose limits on piglet size overall. In the last 2-3 weeks of pregnancy weight of the foetus will double provided there is sufficient placenta and provided sufficient nutrients are supplied. Underfeeding (a failure to steam up in late pregnancy) will tend to produce pigs of adequate skeletal size but poorly fleshed and hence of low weight and inability. Feeding strategies should be regularly reviewed in the light of piglet weight and quality at birth.

The next factor to consider as playing a major role is affecting mortality outdoors in the bedding. Chilling and overlaying account for a high proportion of losses. Inadequate bedding, particularly if gaps are left around the edge of the arc, lead to chilling and death. Excessive bedding, especially if long chopped straw is used, can entangle piglets rendering them unable to move freely and out of the way of the sow; crushing and overlaying result. The use of chopped straw is not widely practised outdoors but short chopped barley straw is probably the best compromise. The size of the sow relative to the arc size and design can also have a dramatic effect on overlaying. The modern sow is much larger than her ancestors and yet for the most part arcs are still the same size as those used 30 years ago (with insulation added many are actually smaller internally). Some producers have experienced dramatic reduction in mortality in larger arcs.

Litter desertion and mismothering is a major issue for many herds. Improvements can occur in single paddock farrowings and the practise of shutting sows in during and immediately after the farrowing process can help. Denial of food and water to sows in this situation can potentially compromise welfare but it should be noted that in the wild the sow will bury herself in a huge nest and not reappear for 2-3 days after farrowing (she may acquire moisture from eating leaves etc that form the nest).

Predation by foxes and crows can be significant but should never be used as an excuse for high mortality. Whilst fox fencing is not an absolute guard against predators it can considerably reduce problems.

Whilst health problems are often much less outdoors some diseases are seen. Hygiene is key to all diseases processes and a failure to move arcs between each farrowing and remove or burn all bedding leads to microbial build-up that will create a greater risk of scour, septicaemia and joint ill. Clostridial scours are not unique to the outdoor herd but tend to be more common outdoors. Contrary to popular belief land does not have to have been previously occupied by sheep to be contaminated. Clostridia are soil borne organisms and can occur anywhere. Sheep are particularly susceptible to clostridial infection and can act as a sentinel to identify an infected pasture – they do not necessarily cause the contamination (they may however, increase the level of contamination). A correctly applied vaccination programme worked out in conjunction with the veterinary advisor will prevent clostridial scours.

A benchmark of 10-12% preweaning mortality on a litter size of 11 pigs born alive is a realistic target for any herd indoor or out. Many herds will have a true mortality of 15%. Within a 500 sow unit selling pigs of 30kg thus additional 5% mortality will give 600 less pigs/year weaned and therefore lose the enterprise something in the region of £15000/year.

At this level a little better planning and attention to detail is well worthwhile.

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