

Hyperprolific sow, physiological or pathological?

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Due to efficient selection and good farm management, modern prolific sows now frequently wean more than 30 piglets per year. However, the need for skilled management also increases, to compensate for specific side effects of hyperprolificacy. Excessive perinatal mortality, low and heterogeneous birth weights are the most evident problems. Although there is no dramatic decrease of fertility as seen in cow herds, modern sows still suffer from various reproduction troubles. Selection for large litters resulted in increased lactation requirements, while on the other side, selection for lean carcasses limits the appetite. Hyperprolific lactating sows are therefore at higher risks of negative energy balances. In conjunction with possible lactation perturbations, this may delay weaning to oestrus intervals and decrease fertility. Shortened pregnancies and long farrowing durations are often associated with large litters and may exacerbate neonatal mortality and postpartum troubles. Possible detrimental effect of prolificacy on longevity is controversial but of great practical interest. There are only a few and time consuming management solutions to alleviate side effects of prolificacy. Therefore, there is a great demand on re-orientation of selection objectives with new components of maternal ability

The present workshop will review and discuss reproduction troubles in modern hyperprolific sow (neonatal mortality, anestrus, infertility, premature farrowing, health disorders, poor longevity...). Special emphasis will be put on risk factors associated with large litters, in interaction with management and health constraints (group housing, reduction of treatments ...). The need for specific management strategies will be discussed. After a review of the drawbacks of selecting for litter size, possible improvement of sow reproduction traits through genetic approach will be discussed. We will debate whether we can select for higher fetal homogeneity, and better neonatal survival, without depreciating fertility and other sow reproduction traits.