Suckling effects in sows

An understanding of the mechanisms regulating milk yield in sows is crucial for producers to make the best management decisions during lactation.

Suckling of mammary glands by piglets is one factor that is essential for development of these glands during lactation and for the maintenance of lactation in sows. The process of mammary development is not static as the majority of it takes place in the last third of gestation, continues during lactation, is followed by involution at weaning and starts over again in the next gestation.

During involution, the mammary glands undergo a rapid and drastic regression in parenchymal tissue, and this can also occur during lactation if a gland is not suckled regularly. Indeed, the pattern of regression is similar for glands that involute at weaning or during lactation. Suckling during 12 to 14 h postpartum is insufficient to maintain lactation and the process of involution that occurs in early lactation is reversible within 1 day of farrowing but is irreversible if a gland is not used for 3 days.

However, milk yield from a gland which is 'rescued' within the first 24 h remains lower throughout lactation. Suckling does not only affect milk yield in the ongoing lactation, but it also seems to affect that of the next lactation. Indeed, non-suckling of a mammary gland in first-parity sows decreased development and milk yield of that gland in second parity.

Nursing behaviour of piglets in early lactation was also affected, where changes were indicative of piglets in second parity being hungrier when suckling glands that were not previously used. It is not known, however, if the same effects would be seen between the second and third lactation.
Furthermore, the minimum suckling period required to ensure maximal milk yield from a gland in the next lactation is not known.

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