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TITLE

DEVELOPMENT OF A PRACTICAL PROTOCOL FOR COLOSTRUM INTAKE EVALUATION IN COMMERCIAL FARMS

Philippe LENEVEU[1], Benoît LAUNAY[2], Agnès JARDIN[1], Paul CREAC'H[1], Verena SCHÜLER[3], Anne LEHEBEL[2], Mily LEBLANC-MARIDOR[2], Catherine BELLOC[2]

[1] *IDT Biologika, 17 Rue du Sabot, 22 440 Ploufragan, France*
[2] *BIOEPAR, INRA, Oniris, Université Bretagne Loire, 44 307 Nantes, France*
[3] *IDT-Biologika GmbH*

CONTENT

Background and Objectives
Colostrum intake evaluation is described in literature but the methods use is not applicable in production farms (time-consuming and costly). This study aims to define a more feasible protocol focusing on growth (i.e. quantity ingested) and maternal immune transfer.

Material & Methods
To determine references values, 864 identified piglets of 10 production farms were weighed at birth and 24h after to calculate the 24h weight gain (WG24). They were also weighed at the end of farrowing and 24h later to calculate an approximate 24h weigh gain (WG24A). Blood samples of 496 piglets at 24h were analyzed for total IgG dosage.

Results
WG24A is correlated to WG24 (r=0.66). But data of piglets weighed within 2-3 hours after birth show that the weight gain in the first 2.5h represents 46% of WG24. Using WG24A led to misestimate this crucial period. Consequently, suggested protocol is to spend two half days on farms during farrowing period. On day One, a minimum of 30 newborn piglets are identified and weighed at birth with a precise scale. On day Two, 24h later, the same piglets are weighed. Then, WG24 are compared to threshold values obtained in the 10 studied farms for 90% piglet-survival: piglets' birth weight < 1kg: WG24 ? 75g / [1- 1.2kg[: WG24 ? 50g / ? 1.2kg: WG24 positive.
Additionally, on day Two, six piglets from six litters are selected (one light, one medium, one heavy per half of farrowing) and blood sampled to investigate the immune status. Reference is a maximum of 10% piglets below 20mg/ml of total IgG.

Discussion & Conclusion
This protocol that can be easily implemented in commercial farms has been validated using a thorough study of weight gain and immune transfer during the first two days of piglet life in farms with hyperprolific sows.