2011. Journées Recherche Porcine, 43. 287

Influence de l'apport en acides gras essentiels dans l'alimentation de la truie sur le statut inflammatoire du porcelet au sevrage

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Effect of essential fatty acids supplementation in sow diet on weaned piglets' inflammatory status.

N-3 polyunsaturated fatty acids (PUFA) have beneficial effects on piglet vitality. These effects could be due to the anti-inflammatory action of n-3 PUFA *via* their derivatives (prostaglandin, leukotriene). The main objective of this experiment was to investigate fatty acid composition of piglet plasma and plasma haptoglobin level, as a marker of inflammation, in response to maternal dietary extruded linseed intake. Sows received either a sunflower oil-based diet (TRL) or an extruded linseed based-diet (LIN) during gestation and lactation. Extruded linseed supplementation in the sow diet modified the fatty acid composition of piglet plasma. There were less n-6 PUFA (1.3 times less) and more n-3 PUFA (6.7 times more) in extruded linseed group as compared to the sunflower oil group. This resulted in lower C20:4 to C20:5 ratio in the extruded linseed group. Moreover, maternal extruded linseed supplementation decreased plasma haptoglobin level (inflammatory molecule and piglet health indicator) of piglets (2 times less). Our results showed that the introduction of extruded linseed in a sow's diet modified plasma fatty acids profile and the inflammatory status of piglets.