Scutellaria baïcalensis extract improves milk production in hyperprolific sows

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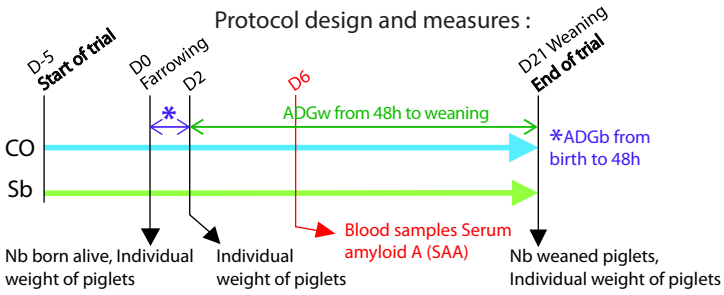
INTRODUCTION & OBJECTIVES

In nowadays hyperprolific context, the amount of milk available per piglet decreases, compromising the survival, health and performances of the litter. In dairy cows, post-partum inflammation process can be negatively linked to milk production. A trial was conducted to evaluate the relation between inflammation and milk production of hyperprolific sows. The potential effects on lactation performance of a Scutellaria baïcalensis extract, selected for its anti-inflammatory properties, were studied.

MATERIALS & METHODS

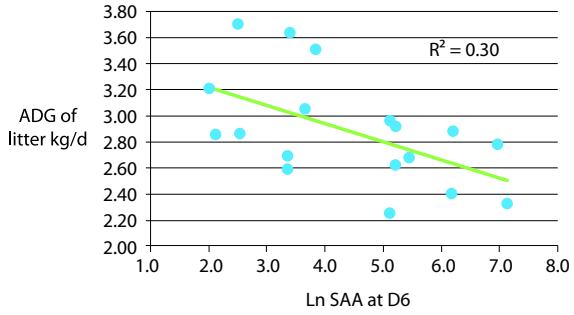
- 43 LW x L sows: 21 in the trial group (Sb) and 22 in the control group (CO).
- From day 5 before farrowing to day 21, the lactation feed of Sb group was supplemented with a Scutellaria baïcalensis extract.
- The average daily weight gain (ADG) was calculated.
- Rectal temperature (RT) of sows were measured at D0, D1 and D3 after farrowing.

Protocol design and measures :



RESULTS

Correlation between plasmatic concentration of Serum Amyloïd A (SAA) and milk production of multiparous sows



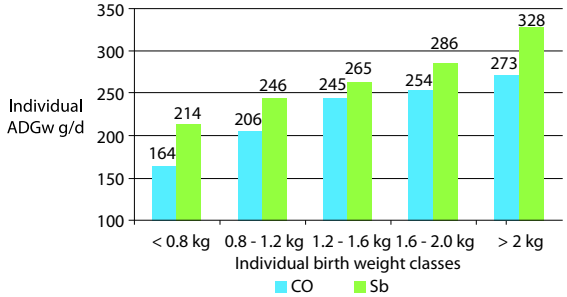
High SAA values reflect a pro-inflammatory status of sows. **Post-partum plasmatic concentration of SAA was negatively correlated with milk production of multiparous sows** *(p<0.05)*.

Global zootechnical performance of multiparous sows

			Control			Sb plant extract			Stat
			Mean	Std dev	Nb	Mean	Std dev	Nb	
	Piglets born alive		14.45	2.56	22	14.14	3.66	21	NS
	Piglets Weaned		11.68	2.15	22	11.05	1.86	21	NS
SOWS	RT (°C)	D0	39.04	0.256	26	38.88	0.467	26	
		D1	38.86	0.478	27	38.64	0.583	27	
		D2	38.67	0.445	21	38.63	0.681	20	
	Birth weight (kg)		1.33	0.384	318	1.32	0.380	314	NS
PIGLETS	48h weight (kg)		1.88	0.531	276	1.80	0.444	251	NS
	Weaning weight (kg)		**5.68**	1.358	257	**6.04**	1.113	246	**0.001**

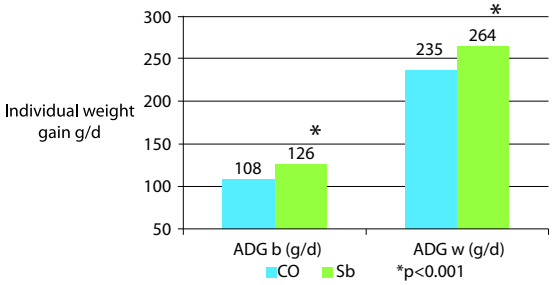
Rectal temperatures of Sb sows were lower than control sows *(p<0.05)*. **Sb extract** significantly **improved weaning weight** *(p<0.01)*.

Effect of Sb extract on individual weight gain (per birth weight class)



Sb extract increased ADGw of piglets, **whatever their weight at birth.**

Effect of Sb extract on piglets growth during the colostral and the milk phases of lactation



Sb extract significantly improved growth of piglets during phases of colostrum production and milk production (p>0.01).

CONCLUSIONS

These results indicate that high plasmatic concentration of SAA occurring the days following farrowing has a negative impact on milk production. The use of a specific Scutellaria baïcalensis extract improves growth of piglets through an enhanced colostrum and milk production.

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