



## P.446

**Farrowing progress (chronopart) and enzootic neonatal diarrhoea: observational study in nine commercial herds**Jean-Noel Sialelli<sup>2</sup> Fabien Vautrin<sup>2</sup> Yannick Lautrou<sup>3</sup> Isabelle Oswald<sup>4</sup> Nathalie Quiniou<sup>5</sup> Guy-Pierre Martineau<sup>1</sup>

1. National Veterinary School, Toulouse, France; 2. Farm'apro, Lamballe, France; 3. ESA Angers, Angers, France;

4. INRA Toulouse, Toulouse, France; 5. IFIP, LeRheu, France

**Introduction**

In some area of France, almost 20% of the farms are concerned with enzootic neonatal diarrhoea (END) (Sialelli et al., 2009). On-farm investigations conclude that many different bacteria such as *Clostridium perfringens* type A, *Clostridium difficile*, *Enterococcus durans* and others may be isolated but not consistently (Gin, 2008). Our hypothesis is that END origin at the sow level. The aim of this study was to describe the parturition in herds with END in comparison of herds without END.

**Material and Methods**

Selection of herds: among 100 herds from the same Coop (COOPERL-Arc Atlantique, Brittany, France), nine commercial herds were retained according to presence or absence of END but also on the level of productivity, hygiene, management and stockmanship: 4 herds were regularly affected by END and 5 herds without any history of diarrhea. The farrowing has been followed in 26 sows (Table 1).

Measures: chronoparts (individual time at birth of littermates), piglets' weight at birth and at 24 h of age (in order to estimate colostrum production) and colostrum data (IgG) were obtained.

**Table 1:** Herds and sows selected according to presence or absence of END (Enzootic Neonatal Diarrhea)

Herds	Control N=5		Affected by END N=4	
	No	Yes	No	Yes
END status of sows	No	Yes	No	Yes
# sows	33	17	36	17
Mean piglet's interval	11.6	18.1	14.8	18.1
% born > 3hrs	7.1	26	19.7	26
Total born	14.9	14.0	14.9	14.0
Born alive	13.9	13.3	13.7	13.3
Farrowing (min)	158	213	197	213

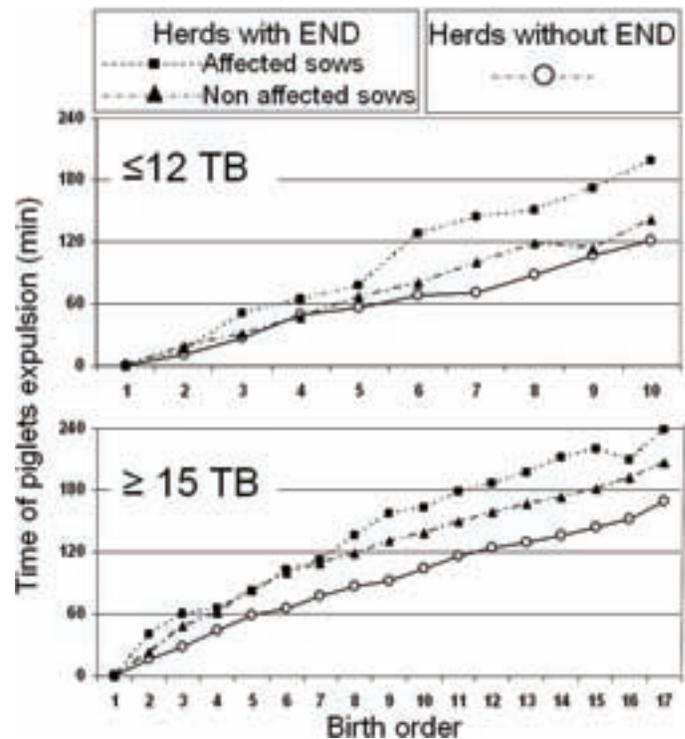
**Results and Discussion**

Only data on farrowing duration is reported. Data on IgG in colostrum and piglets' sera has been previously reported (Sialelli et al., 2009).

Parities 1 and 2 sows presented more risk to develop piglets' END (OR=3.6, p<0.05). Duration of farrowing was longer in affected sows in affected herds than in unaffected ones. In affected herds, the duration of farrowing of unaffected sows was intermediate between unaffected sows and sows from control herds (Table 1).

Pattern of farrowing is different according to the size of the litter (Figure 1).

**Figure 1:** Chronopart from sows in affected herds and control herds. In affected herds, sows are divided in unaffected sows and affected sows



In litter  $\leq 12$  total born piglets, birth rhythm is similar for the beginning of farrowing whatever the status of the sows (END pos or neg) or herds (control vs affected). However, there is a difference after birth of the 5th piglet (Figure 1). In large litter ( $\geq 15$  TB), birth rhythm is always upper in sows from control negative herds. In affected herds, a significant difference appears after the birth of the 8th piglet.

**Conclusion**

END is probably a consequence of a problem at the sow level. Investigations are under evaluation to approach farrowing in herds affected by long farrowing (Sialelli et al., 2010).

**References**

- Gin T. Veterinary Thesis. Toulouse Veterinary School. 2008, pp72
- Sialelli J-N et al., Journées Rech Porc. France. 2009 ; 41 : 167-172
- Sialelli J-N et al., Proceedings IPVS 2010