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EFFECT OF WEANING AGE ON IBERIAN PIGLET´S DIARRHOEA

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INTRODUCCTION

Weaning involves changes in piglet gut morphology. The structure and function of digestive system begins to change immediately when milk supply is interrupted. This cause may be due because piglets adapt too early to the new feeding patterns. This situation should not pose problems if piglet has the capacity to use new energy sources effectively. However, after weaning, piglets have a reduction in absorption capacity and therefore a susceptibility to enteric pathogens that may cause diseases. Physical maturity of piglets varies according to their age, and determines the way in which they adapt to weaning changes. The period of adaptation to these new conditions affects the health of the piglets, and consequently, their production rates. Therefore, the choice between late or early weaning becomes a defining factor in ensuring that animals' physiological balance and productivity levels are restored as soon as possible.

MATERIAL AND METHODS

In order to assess the influence of weaning age on susceptibility piglets' diarrhoea, a total of 360 Iberian piglets were studied. Three trials were conducted with 24 litters in each one. In each trial there were two weaning age, and same numbers of litters were assigned at random to be weaned at 28 (n=12) or 42 (n=12) days postpartum. In each trial, and from each weaning age, four groups of 15 piglets were assembled by litters (three litters by group and five piglets at random from each litter with different sexes and sizes). Each group placed in a pen measuring 7,5m^2 (0,5m^2 /piglet) giving four pen per weaning age per trial (12 replicates per weaning age). Piglets´ diarrhoea and productivity levels was recorded weekly. Data were analysed using Spss® and statistical significance were accepted at P<0,05.

RESULTS

There were similar prevalence (P_{28} = 27,2%; P_{42} = 31,9%) and incidence (I_{28} = 22,5%; I_{42} = 19,8%) in both weaning age groups for the whole study period (Fig.1). Was also the case of mortality (M_{28} = 2,9%; M_{42} = 1,1%) (Fig.2). Although Post-weaning diarrhoea is a multifactorial condition, in our case was characterised by proliferation of enterotoxigenic *E.* coli with a low lethality (L_{28} = 0,11%; L42 = 0,18%).

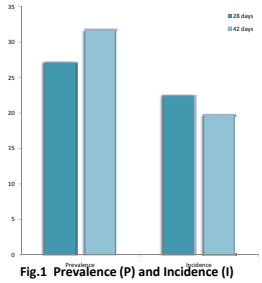

Fig.1 Prevalence (P) and Incidence (I)

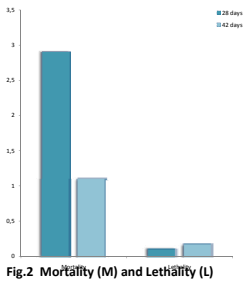

Fig.2 Mortality (M) and Lethality (L)

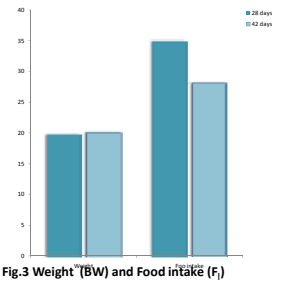

Fig.3 Weight (BW) and Food intake (F_I)

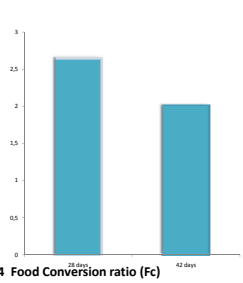

Fig.4 Food Conversion ratio (Fc)

There were no differences in weight between two weaning groups at the end of the trial (Bw_{28} = 19.82±0.35 Kg; Bw_{42} = 20.18±0.30 Kg)(Fig.3). However, over the full period, piglets that were early weaned ate more food ($F_{I\,28}$ = 35,19±0.25 Kg; $F_{I\,42}$ = 28,20±0.22 Kg)(Fig.3), but derived less benefit from it (P<0.000), ($F_{C\,28}$ = 2,65±0.08; $F_{C\,42}$ = 2,02±0.06)(Fig.4). Therefore, weaning age has similar influence on piglets´diarrhoea, but has a greater influence on weaning production rates.

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