FARROWING ACCOMODATION AND LOSSES, VITALITY AND DAILY GAIN OF PIGLETS AS INDICATORS OF WELL BEING

H. BEKAERT
National Institute of Animal Nutrition
B-9231 Melle, Belgium

ABSTRACT

In a study piglet losses and vitality of piglets, as measured by daily gain, as indicators of well being, were investigated, using 2 farrowing facilities, namely standard farrowing pens and farrowing pens equipped with farrowing boxes. A total of 90 sows and 782 piglets were involved. The experimental results do not reveal any improvement in well being of the piglets as measured by mortality rate and daily gain due to a modification of the farrowing pen.

INTRODUCTION

One of the most critical periods in the piglets life is undoubtedly the period of birth. Indeed, in this period the piglet is faced to different environmental changes. It is generally known that the highest mortality rate is noted immediately after birth (Braude, 1972; English et al., 1977; Dreihsig, 1978; Hughes and Varley, 1980). This means that a maximum of precautions are necessary to prevent this high mortality rate, avoiding by these important financial losses and improving the well being of the piglet. A reduction of mortality can be realized by creating an optimum microclimate for the newborn piglets and by using farrowing crates (Aumaitre, 1977). Indeed one of the principal causes of death is overlying (English et al., 1977; Dreihsig, 1978; Hughes and Varley, 1980). Some years ago a reduction in piglet losses of 7.3% was obtained as a result of the introduction of farrowing crates. The question arises if other precautions can be taken to reduce further mortality and if it is possible to improve as such the welfare of the piglet by equipping the farrowing pens with farrowing boxes and if this equipment has an influence on the vitality and daily gain from birth to weaning age.

Communication R.V.V. n° 514.

D. Smidt (ed.), Indicators Relevant to Farm Animal Welfare
© ECSC, EEC, EAEC, Brussels-Luxembourg 1983
MATERIALS AND METHOD

To study the effect of farrowing accommodation on the well being of the baby pigs, mortality, vitality and daily gain were compared of the piglets born in farrowing conditions with farrowing boxes or in farrowing conditions without these boxes. By installing the boxes at the expected farrowing day, the pens were adapted as follows: 3 metal slats behind the sow were inclined so that they formed a chute, ending in the farrowing box bedded with straw and equipped with an electric heater. Heat was delivered by 2 lamps of 250 watt, one in the creep area and another one above the box or behind the sow by lack of farrowing boxes.

In this trial 41 sows of the Belgian Landrace farrowed in pens with diagonally placed crates and 49 sows farrowed in identical pens provided with farrowing boxes. The number of piglets concerned was respectively 367 and 415.

RESULTS

1. Post-natal mortality

From birth to weaning at ± 28 days the post-natal mortality decreased from 18.3 % to 15.9 % by using a farrowing box. It is generally accepted that most of the casualties occur during the first week. By then, the effect of the farrowing accommodation should be shown by the mortality rates during the first days. An analysis of the mortality rate in relation to farrowing accommodation and age is mentioned in table 1.

Considering the first two days, one could be tempted to derive that the use of a farrowing box decreases the mortality rate, but from the 3rd day on, this mortality rate becomes higher. Moreover, it is worth mentioning that the mortality in the first 7 days amounted to 72.8 % of total deaths with the farrowing box and 64.2 % without that box.

It is also interesting to know the principal causes of death. Contrary to the expectations 55.6 % of the died piglets were crushed on birthday by using the farrowing box against 52.9 % without the box. In general, during the total