

Feeding value of protein-rich peas for weaned piglets

J. P. BOUARD ⁽¹⁾, J. CASTAING ⁽²⁾, J. FEKETE ⁽¹⁾

M. LEUILLET ⁽¹⁾, F. MERLE ⁽²⁾

⁽¹⁾ I.T.C.F., 8, avenue du Président-Wilson, 75116 (Paris)

⁽²⁾ A.G.P.M., 1, place de Lestapis, 64000 Pau (France)

⁽³⁾ C.C.P.A., Z.A., 12, rue des Beaux-Soleils, 95520 Osny (France)

Three coordinated trials were made on the utilization of protein rich peas (variety Frimas) in weaned piglets. The incorporation levels were 0, 15, 30 and 45 p. 100 depending on the place of the experiment. The dams of the piglets came from « minimal disease » Large White herds. Piglets were weaned at 26 days, on an average, then kept in a special rearing house in flat deck pens. After an adaptation period of about twelve days, they were fed experimental diets during 4 to 5 weeks.

The results of these trials were grouped together and concerned 858 piglets with a mean live weight of 8.5 kg at the beginning of the experiment and 25 kg at the end.

The performance of piglets fed with 30 to 45 p. 100 peas were reduced as compared to the controls. The appetite of piglets was first affected, their feed intake reaching 97 and 83 p. 100, respectively of that of the controls. Thereafter, the growth rates decreased almost linearly. The feed conversion ratios varied from 105.5 to 107.7 p. 100 as compared with diets without peas. Thus, a lower intake was accompanied by a lower feed efficiency.

The performance of piglets fed with diets including 15 p. 100 peas were very close to those of the controls. The slightly increased feed intake (3 times/3) led to a slight improvement in growth and feed efficiency (2 times/3).

This incorporation level must therefore be considered as a maximum one in 2nd age feeds offered from 8/9 kg live weight.

Utilization of peas in early weaned piglet diets. Influence of the type of cereal

G. BERTRAND ⁽¹⁾, J. M. PEREZ ⁽²⁾ et P. QUÉMÈRE ⁽¹⁾

⁽¹⁾ S.E.R.E.P., Institut Supérieur Agricole, 60026 Beauvais (France)

⁽²⁾ I.N.R.A., Station de Recherches sur l'Élevage des Porcs
78350 Jouy-en-Josas (France)

Recent French studies showed that incorporation of 15 p. 100 peas combined with three cereals (barley, wheat, maize) into 2nd age diets led to favourable results between 9 and 26 kg live weight, while use of higher levels reduced the performance.

Two series of trials were made just after weaning (3 to 4 weeks of age) in piglets of 5-7 kg live weight distributed into three weight classes (heavy, mean, light) in order to study the influence of incorporating peas into diets including a single cereal:

- 20 p. 100 peas added to a diet based on maize (first topic, 4 trials, 96 piglets/trial);
- 30 p. 100 peas added to a diet based on wheat or maize (2nd topic, 3 trials, 108 or 96 piglets/trial).

The diets exhibited the same protein and energy characteristics (lysine, sulphur amino acids, digestible Energy). In both treatments, the results showed a very high repeatability.

The results of the *first series of trials* (384 piglets) showed that incorporation of 20 p. 100 peas into a diet based on maize:

- reduced piglet feed intake (— 9 p. 100) and growth rate (— 10 p. 100) especially during the 1st age period (3 to 6 weeks) and in heavy piglets (— 37 p. 100);
- little affected the feed conversion ratio on the whole period, but increased it considerably just after weaning (+ 32 p. 100) particularly in heavy piglets (+ 54 p. 100).