

SUMMARY

TOTAL OR PARTIAL SUBSTITUTION OF COOKED SOYBEAN OIL-MEAL IN MAIZE DIETS

Experiment 1

The first experiment was carried out with 6 groups of 14 pigs (7 castrated males, 7 females) from 27 to 103 kg live weight, fed individually according to the *semi ad libitum* method till a maximum feed restriction level of 2.4 kg/pig/day.

A control diet containing maize and cooked soybean oil-meal with 17.9 p. 100 crude protein (CP) and 0.93 p. 100 lysine was compared to diets with :

— partial or total substitution of soybean oil-meal by fish meal at a high lysine level (about 0.93 p. 100) ;

— partial substitution* of soybean oil-meal by sunflower oil-meal, peanut oil-meal or a mixture of the three above mentioned protein sources at a lower lysin level (about 0.75 p. 100).

The performances and carcass dressing results were very similar whatever the type of supplementation used.

In these high energy diets (about 3 350 kcal — with maize as only cereal), the low lysine level (0.75 p. 100) was insufficient, especially at the beginning of the growing period.

Experiment 2

In the same feeding conditions, 6 diets were tested on groups of 16 pigs each, penned individually.

Maize was combined with two protein sources, *i. e.* soybean « 50 » oil-meal and alcane yeast (« G » yeast BP Grangemouth method).

In each combination, the levels of lysine and crude protein of the previous experiment were used and compared with a diet with a lower CP content (16 p. 100) and a high lysine content (0.93 p. 100).

The performances were favourably changed by :

— the protein source used (« G » yeast),

— the high lysine level (0.93 p. 100) when the protein level was 18 p. 100 and 16 p. 100 respectively. (The latter level was only used in the case of soybean « 50 » oil-meal.)

**LA DISTRIBUTION BI-HEBDOMADAIRE DE L'APPORT AZOTÉ
PERMETTRAIT-ELLE L'OBTENTION DE CARCASSES MAIGRES
CHEZ LES FEMELLES A L'ENGRAIS?**

G. CHARLET-LERY, B. DESMOULIN * et M.-T. MOREL

Laboratoire de Recherches sur la Conservation et l'Efficacité des Aliments,

**Station de Recherches sur l'Élevage des Porcs*

Centre national de Recherches zootechniques, I. N. R. A.,

78350 Jouy en Josas

RESUMÉ

La dissociation partielle des apports énergétiques et azotés au cours de la semaine (11 repas à taux azoté bas BN et 2 repas à taux azoté haut HN représentant 40 p. 100 des apports protéiques), a été expérimentée chez les femelles en croissance après l'avoir été chez les mâles castrés.

Comparée à un régime normal (13 repas de même composition apportant, par semaine, les mêmes quantités d'énergie et de protéines) cette dissociation provoque chez les femelles, et contrairement aux mâles castrés, une diminution des bilans azotés (19,2 contre 22,7 g/j), un ralentissement de la croissance (618 contre 694 g/j entre 26 et 100 kg) et une augmentation des indices de consommation (3,06 contre 2,79 kg MS/kg gain).

La légère amélioration des carcasses que l'on constate pourrait être attribuable à la moindre lipogenèse consécutive aux repas HN; elle ne compense pas les inconvénients cités.

SUMMARY

EFFECT OF GIVING PROTEIN SUPPLEMENT TWICE A WEEK TO A LOW NITROGEN DIET ON CARCASS COMPOSITION IN GROWING FEMALE PIGS

The influence of dissociating energy and protein feeding during one week (11 feeds at a low nitrogen level (LN) and 2 feeds at a high level of nitrogen (HN) providing a total amount of 40 percent protein) was studied with female pigs and compared with the results previously obtained with castrated male pigs.

The control pigs were fed a constant amount of protein at each meal. Control and experimental animals received the same amounts of protein and energy per week.

In opposition to castrated pigs and compared to controls, the female pigs subjected to dissociated feeding had the lowest N balance (19,2 versus 22,7 g/day), the slowest growth rate (618 versus 694 g/day between 26 and 100 kg) and the highest feed conversion (3,06 versus 2,79 kg dry matter/kg live-weight gain). The best quality of carcasses we observed could be explained by the low lipogenesis after HN meals. It did not compensate the mentioned disadvantages.

INFLUENCE DE LA COMPOSITION DU COMPLÉMENTAIRE PROTIDIQUE SUR LE COMPORTEMENT ALIMENTAIRE ET LES PERFORMANCES DU PORC EN CROISSANCE

J. LOUGNON

*A. E. C. - Société de Chimie organique et biologique
03600 Commentry*

RÉSUMÉ

Deux expériences sont réalisées en vue de préciser le comportement alimentaire du porc en croissance disposant en permanence et à volonté d'un régime à base de céréales (blé-maïs) et d'un régime complémentaire de composition variable.

Dans la première expérience, on utilise 4 régimes complémentaires dont les taux de protéines brutes et de lysine (p. 100) sont les suivants : 24 — 1,2 (1) ; 50 — 1,2 (2) ; 24 — 3,3 (3) ; 50 — 3,3 (4). Les animaux refusent le régime (2) et ont par suite des performances très