

Effects of feeding level at early gestation on body condition and reproductive performances in sows

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A total of 36 hyperprolific Danbred second- (n=12), third- (n=12) and fourth-parity (n=12) sows were used to evaluate the effect of feeding level at early gestation on the sow body weight (BW), backfat and loin muscle measures and reproductive performances. During the pregnancy, all the animals received a standard gestation diet. From day 1 to 30 after the first insemination, sows were given increasing feeding levels: 2.5 (control, n=12), 3.0 (n=12) or 3.5 kg/d (n=12). From day 31 to 90, all of them were fed 2.5 kg/d and from day 91 to the farrowing 3.0 kg/d. The BW of all sows from the previous weaning to the trial was recorded. Before and after farrowing, sows given at least 3.0 kg/d during the first 30 d post-insemination were heavier than those given 2.5 kg/d (P<0.05). Also, sow BW gain was affected by the diet and by the number of parity. So, groups were fed higher levels of feed (3.0 and 3.5 kg/d) gained approx. 44.0 kg from the previous weaning to the farrowing, whereas group that was fed the lowest level (2.5 kg/d) gained 40.0 kg (P=0.05). In addition, the BW gain from the previous weaning to the subsequent one decreased as the number of parity increased (P=0.005). On the other hand, backfat and loin muscle depths at farrowing were lower with 2.5 than with 3.5 kg/d (P=0.08 and P=0.001, respectively) and the fatness also increased with the number of parity (P=0.03). Similar results were observed in backfat and muscle gains from the previous weaning to the farrowing. No effect of parity number was detected on reproductive performances at birth but litter size tended to be lower with increasing levels of feed from 2.5 to 3.5 kg/d (+3.6 total piglets born; P=0.06 and +2.9 piglets born alive; P=0.07). However, sows given the lowest feed level had the lightest newborn piglets (P=0.02) and their weights tended to be more heterogeneous (P=0.08). It can be concluded that increasing feeding level during the first 30 d of pregnancy from 2.5 to 3.5 kg/d increased sow BW and backfat and muscle gain and carried out smaller litter sizes with heavier piglets.

Book of Abstracts of the 69th Annual Meeting of the European Federation of Animal Science

Dubrovnik, Croatia, 27th – 31st August, 2018



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EAN: 9789086863235
e-EAN: 9789086868711
ISBN: 978-90-8686-323-5
e-ISBN: 978-90-8686-871-1
DOI: 10.3920/978-90-8686-871-1

ISSN 1382-6077

First published, 2018

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The Netherlands, 2018



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