

Nutritional Management of Pre-slaughter Stress to Reduce Carcass Loss

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The transport and handling of pigs prior to slaughter constitutes a significant stress to the animals and can result in both live and carcass loss. The implementation of imposed pre-slaughter time off feed regimes, designed to reduce gastrointestinal tract fill, may well exacerbate such weight loss. Experiments were conducted on market weight slaughter hogs to examine whether providing pigs with a liquid nutritional therapy product, designed to lessen stress pre-transport, could reduce such weight loss.

One hundred and twenty-seven manor hybrid crossbred pigs (Genex stock) were divided into two treatment groups designated control (n=64) or nutritional therapy (n=63). Pigs within each group were further allocated into two time off feed regimes as 0h off feed pre-slaughter or 24h off feed pre-slaughter. For the nutritional therapy treatment the animals were offered a liquid nutritional product (USA Patent 5505968) for 48h pre-transport to slaughter through their normal automatic water spigots. All pigs were subsequently transported for approximately 1h prior to being slaughtered. Measurements for hot carcass weight and meat quality (pH, objective colour and drip loss) were collected.

No significant treatment differences in pork quality were observed. However, for the control animals, the pigs held off feed for 24h pre-slaughter lost 1.1% more hot carcass weight compared to the control animals held off feed for 0h ($P<0.05$). In contrast, the nutritional therapy treated pigs held off feed for 24h lost only 0.14% more hot carcass weight compared to the treated animals held off feed for 0h ($P>0.05$). In other words, the pigs held off feed for 24h lost less carcass weight when offered the liquid nutritional therapy treatment pre-transport.

Implications: Pigs held off feed as part of their marketing requirement may lose less carcass weight if offered liquid nutritional therapy pre-transport. The reduction in carcass weight represents approximately \$2-3 value per hog.