

Ractopamine Safe for Use in Brazilian Pork

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BRAZIL - Animal scientists in Brazil have found that a small dose of the feed additive ractopamine can boost pork production without changing how pork looks or tastes.

In the latest issue of the *Journal of Animal Science*, researchers report that a 5 mg/kg dose of ractopamine increased muscle mass and feed efficiency, and had no noticeable effect on pork marbling, fat content, toughness or color. The researchers came to this conclusion by testing pork from 340 pigs raised under commercial conditions.

"We found that if [pork producers] use 5 mg/kg of ractopamine in the finishing diet of swine that should result in no detrimental effects on fresh pork quality and cooked pork palatability," said Natália Bortoleto Athayde, an animal scientist at Sao Paulo State University in Brazil.

Ractopamine is a common feed additive in Brazilian and US pork production. The additive increases the size of muscle fibers by increasing protein synthesis in muscle cells. Many pork producers use ractopamine because it allows pigs to grow larger with less feed.

However, some scientists have reported reduced pork quality with higher doses of ractopamine. To test this finding, Athayde and other researchers split a herd of pigs into three groups and gave them 0, 5 or 10 mg/kg of ractopamine during the last 28 days before slaughter. They then slaughtered the pigs and tested the pork pH, temperature, color, drip loss, marbling, intramuscular fat, cooking loss and tenderness. According to Athayde, analyzing meat color is important because meat color changes can be a sign of stress in an animal.

The researchers found that though 5 mg/kg had no noticeable effects, pork from the 10 mg/kg pigs was lighter and less tender than pork from control group pigs. Athayde said this confirms previous studies showing that 5 mg/kg is an appropriate dose in Brazilian commercial pork production.

"Pork is the most animal protein consumed in the world, and Brazil is currently the fourth largest producer of this meat," said Dr Athayde. "We export about 15 per cent of pork we produce and we believe it is extremely important to know the quality of the meat that we offer to the world."

Dr Athayde recommends further studies of how ractopamine affects animal behavior, consumer health and the environment.

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