Comparison of Product Yield:
Entire and Castrate Pigs - Based on CT-scanning

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Aim:

To compare the primal cuts yield from entire and castrates with the same lean meat content. The yield is based on CT scanning of a half-side carcass.
Comparison of Product Yield:
- Entire and Castrate pigs – based on CT-scanning

Lean Meat Content Distribution

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<th>FREQ</th>
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59.7 60.8
Materials and Methods

- 51 castrate and 51 entire boar left side carcasses were selected from our CT database to be compared.
- All the carcasses were cut virtually with the program PigClassWeb to simulate the ESS-FOOD products: 1301, 1601+1801 and 1201
- The middles were cut virtually into bacon products
Calculate the yield

1. Estimate the weight of the virtual cuts based on volume and density!

\[ W_{\text{total}} = V_{\text{fat}} \cdot \beta_{\text{fat}} + V_{\text{meat}} \cdot \beta_{\text{meat}} + V_{\text{bone}} \cdot \beta_{\text{bone}} \]

- \( W \): Weight of scanned cut
- \( V \): Tissue volume
- \( \beta \): Tissue "Density" constant

2. Then the \( \sum \) weight of the primal cuts was normalized to 36 kg (the average of the population).
Results

The primal cuts, ESS-FOOD catalogue

Back and Belly products
Conclusion

The test has been reproduced 11 times randomly selecting different sample groups.

- Entire males have larger fore-end compared with castrates.

- Entire males have smaller back/loin compared with castrates.
Thank you for attention

Poster discussion: F-11

DMRI contributions to ICoMST 2012

Thanks to:
- Niels C. Kjaersgaard
- Lars Bager Christensen
- Eli V. Olsen
- Peter Vorup
- Mianne Darré

Danish Pig Levy Fund for financing of the work