



Source: AAFC Lacombe

Objective methods for the evaluation of marbling and other meat quality traits

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A literature review on methods to objectively predict marbling and other meat quality traits has been carried out and is now available online at www.swineinnovationporc.ca.

Why was this study done?

Marbling, or the visible intramuscular fat found in pork meat, is a major contributor to the natural flavours and juiciness of cooked pork. Marbling as well as other quality attributes, such as colour, drip loss and tenderness, is considered or required by customers in Canada and abroad when buying pork meat.

In most Canadian packing plants, meat quality (including colour and marbling) is evaluated using visual assessment, which has many drawbacks in terms of time, consistency and subjectivity. Therefore, there is a need for new technology to objectively assess meat quality traits in order to provide consistent,

Source: Canada Pork International & CCSI

quantifiable differentiation points useful for pork grading and product sorting. The main challenge is to find which technologies would provide an accurate prediction of the quality of the loin without cutting it.

What was done and what was the outcome?

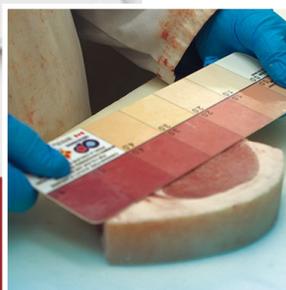
The research team carried out an extensive literature review on methods available to predict marbling and other meat quality traits, including novel technologies that might already be ready for application. Tools in development or already available in other industries and other productions (beef, lamb, poultry, fish, etc) were also reviewed, as some technologies developed for other products may easily be adapted to be used on pork. This literature review is now available on our website.

In addition, statistical analyses were performed on carcass data in order to identify measurements having a high potential to predict meat quality traits. For this, data from more than 500 carcasses from another project titled "Optimizing Canadian pork quality through integrated management strategies" led by the Western Swine Testing Association were used. However, more work is required before firm conclusions may be made.

Collaborators

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Additional project information

Click on the links below for further
information on this project

Additional resources:

- Martineau, J.-P., Wilson, M., Bussi eres D., Farmer, C., Guay, F. (2017) [Partial substitution by organic trace minerals on gilt growth, production and longevity and progeny growth performance](#). Abstract. *Advances in Pork Production (Banff Pork Seminar), Vol 28, Abstract 9*.

Retrieved from: <https://www.banffpork.ca/proceedings/search/>

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