

Classified Information: The Great Canadian Pork Sort

By Geoff Geddes for Swine Innovation Porc | February 11, 2021



Researcher Manuel Juarez during a demonstration in Guelph, Ontario in 2019.
Photo: Canadian Centre for Swine Improvement

If you're one of those people who has trouble just matching your socks, the idea of sorting technologies for pork might seem daunting. Fortunately, researchers are more comfortable with the sorting process, and understand the need for such a system in regard to Canadian pork. Making that system a reality is the goal of the project "Classifying Canadian pork based on quality attributes".

"Consistency and quality assurances that meet different market demands are critical to national and international buyers' sourcing decisions," said Dr. Manuel Juárez, livestock phenomics scientist with Agriculture and Agri-Food Canada at the Lacombe Research & Development Centre. "The main goal of this study is to assess a number of technologies for on-line pork classification based on the proposed Canada Pork (CP) quality grading system."

The CP system will provide buyers with detailed information about expected quality of Canadian pork products. With that in mind, this project aims to evaluate and improve the performance of



current subjective quality standards and identify areas of the carcass on which to measure quality parameters related to loin colour, marbling scores and firmness.

All aboard

At present, researchers are working with Olymel, HyLife, Conestoga Meats and Sunterra Meat Processors, and hope to soon have other commercial companies on board as well.

“We had a meeting in October 2019 where we demonstrated the technologies for all industry partners, and it was very successful,” said Dr. Juárez. “They are interested in tools that can enhance the classification system, so we are testing at the plants and will let them decide what works best for their needs and customers. If the system ends up working differently for each company, yet helps everyone in classifying primal cuts such as shoulder and belly, it will be a good result.”

With the project still in its early stages, Dr. Juárez has already been surprised on a few fronts. For example, he found it interesting that traits which buyers are willing to pay for, and that can therefore have a great impact on the plant’s bottom line, were still being measured in a subjective manner, sometimes with relatively low accuracy.

“I would have thought that we were farther along in the game than that, and to a point where everything could be measured objectively.”

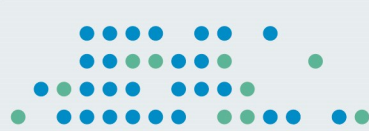
While there are instruments available to do more objective assessments, they are expensive, bulky and time consuming, so are not used on a regular basis. Interestingly, the team found that some cheaper technologies actually performed as well or better than the gold standard system in terms of classification.

Thus far, Dr. Juárez and his colleagues are seeing some promising results that have industry engaged and open to adopting and testing for the short term. As is often the case when it comes to optimizing new technology, the next step will be automation.

Automation information

““We are not engineers, but when we developed these technologies, we considered the possibility of automation in the future. Once our project work is complete, we will produce a report explaining - for each primal and quality trait - the cost, speed and potential for automation. We don’t want to tell anyone what to use, but rather give them the information they need to make the best decision for their operation.”


Though countries like South Korea and the United States have also worked on classification systems, Canada’s position as one of the world’s leading pork exporters means a “made in Canada” approach will be especially impactful.



“We bring in about \$4 billion annually from Canadian pork exports. If we can create a system with technologies that help guarantee the quality of our work product for international buyers, we will be ahead of the game. The reputation of Canadian pork on the world stage is already strong, but being able to offer that quality assurance gives us a distinct advantage in the international marketplace.”

As the pork industry focuses more and more on enhancing efficiencies in the value chain, this project aligns well with current priorities. The main goal of the pork value chain is to produce high quality pork that will maintain or increase consumption in domestic and international markets. Since pork grading and classification systems around the world focus mainly on carcass lean meat yield and weight, including quality attributes is a logical step to improve consumer satisfaction and increase consumption.

“This information will also allow players at different points of the value chain to make decisions that enhance efficiency by selecting practices conducive to greater product consistency, and to increase the percentage of high-quality cuts.”

Anything that helps Canadian pork “make the grade” should keep it in a class by itself for years to come. 

To learn more...

Please contact Dr. Manuel Juarez from Lacombe Research & Development Centre at manuel.juarez@canada.ca if you would like to learn more about the work described in this article.

More information about the project *Classifying Canadian pork based on quality attributes* may be found on our website at www.swineinnovationporc.ca.

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