Try a Little Tenderness

Pork industry makes meat quality a priority.

The pork chops you just lifted off your grill in the backyard look delicious: thick, meaty and juicy. Your knife easily cuts through and the light pink center lets you know they're cooked perfectly. You raise the fork to your mouth for that pivotal first bite… Is it everything you'd hoped for?

Pork quality has grown in importance across the industry's value chain. That focus encourages discussions up the supply chain including with genetic suppliers, says Dan Hamilton, Ph.D., Director of Product Performance for PIC.

The company has selected for improved pork quality through traits like loin pH, color and marbling for a number of years. Recently, PIC has added tenderness as a trait with a high correlation to consumer satisfaction.

"Pork pH and marbling are predictors of what we think consumer eating quality will be, but tenderness correlates directly with that customer's first bite into their pork purchase," Hamilton explains.
Through PIC's genetic nucleus crossbred (GNX) testing program, the company takes samples of loins and measures tenderness through Warner-Bratzler shear-force testing. The trait is now incorporated into the index and weekly data collection is ongoing.

"As we get more data, we're excited about how the outcome is going to be seen by our customers," Hamilton says. "So far, the industry response seems to be very positive."

Taste trials

PIC has funded a number of trials in the last 12 months to understand how its products compare from an eating quality standpoint. They harvested pigs of different sire genetic lines, both internally and from external competitors.

All the females had similar genetics in the trial, and all pigs were raised in the same environment with similar rations, to standardize results.

“We measured all the qualitative pork-quality traits, including pH, color, marbling and tenderness,” Hamilton says, “We conducted trained taste panels with the University of Illinois as well as consumer taste panels.”

Samples were scored on taste, juiciness, tenderness and overall acceptability, and Hamilton says the results were enlightening. Of all the lines evaluated, the PIC 800 Duroc line was the most tender and had the highest overall acceptability with consumers.

“Pork quality should continue to improve over time” he continues. “We’re excited about where we’re positioned and hope to push this effort forward.”

Armed with this information, PIC’s initial step is to share with the pork supply chain how its products can be differentiated in terms of pork quality.

“That helps more customers want to use PIC boars and sows, and hopefully helps them acquire preferential packer contracts in the future,” Hamilton says..

Consumer trends change

Consumer trends have taken many turns in the last 50 years. In the 1930s and 40s, fat was needed for the war effort, and producers obliged with big-bodied, thick pigs. In the late 1990s and into the 2000s, there was a push for low-fat, lean meat, as consumers became more health-conscious. Then, beginning a few years ago, the general consensus was that fat wasn’t so bad anymore.

“As consumer desires have evolved over time, the industry evolves to meet that demand ,” says Brandon Fields, Applied Meat Science Manager with PIC. He works closely with customers and the packing industry as a whole to help them optimize the genetic potential created in the pigs PIC sells.

“With this most recent change, we have managed to develop genetic methods of controlling fat percentage and where that fat is laid down, to an extent,” Fields says. “Genetically speaking, we’re able to increase intramuscular fat while holding backfat constant.”

Fields admits these changes take time.

“The typical flow of our work means that, at best, we will be three to five years down the line before the consumer will experience any genetic changes that we make,” he says. “We have to keep our crystal ball

well-shined and keep a check on where the numbers are pointing in order to stay with the flow of consumer trends."

The direction the pork industry takes is based on what consumers want, and what economics dictate, Hamilton points out.

"We can do anything as an industry; it just needs to be the right thing," he says. "It's a matter of supply and demand."

In other words, as long as customers (pork producers), retailers and consumers want more differentiated pork quality, it will continue to be a high priority in genetic selection.

"Pork quality is a big topic right now," points out Hamilton. "We're supportive of that discussion and we have good data to back it up. But, we're still cognizant of cost of production. As consumer desires have evolved over time, the industry evolves to meet that demand."

Consumer information still important

Products in the meat case will continue to evolve, which means consumers need to know what attributes to look for. That may mean a darker pork chop or loin roast compared to what they may have chosen in the past, as well as a little more marbling.

It also means continuing to inform consumers on proper cooking temperatures.

"If we can get these loins to a 145-degrees Farenheit or 63-degrees Celsius internal temperature, the consumer will have a better eating experience," Hamilton says. "Cooking temperature can make something better or it can ruin it really quickly. The industry has done a lot of work on promoting proper cooking temperatures, but that process needs to continue."

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