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## Passionate about pigs

Daniel Hurnik is—to use an old bit of word-play about the definition of a farmer—a man outstanding in his field. A member of AVC's Department of Health Management, he holds an industry chair for swine research and the answers he provides regional pork producers help determine the health of an industry that pumps a quarter-billion dollars a year into the economy of the Maritimes.

"People don't listen to what industry needs," he says. "People now are mostly either urban or hobby rural; there are actually very few people who understand agriculture. My interest has always been to serve agriculture rather than serve only science or academia." The trouble is, he adds, "We really don't communicate enough among academia and

industry and science providers. I see my job as putting somebody in the middle who actually can understand all sides."

Asked why people should care about what he does, he is refreshingly honest: "Traditionally, I'm not sure people really care that much about the mechanics of raising pigs as long as the ham tastes good." However, as CEO of the Atlantic Swine Research Partnership, he knows unerringly what consumers do care about: food safety and wholesomeness. "The core essence of the work I do is to give producers and society choices, and when consumers have a choice in the supermarket, some of it comes from research that was done here."

Farmers give him the research questions, based on their immediate needs. Hurnik's job is to do the science and provide the answers, quickly. "If you give them an answer in four years, they've forgotten why they asked in the first place. Industry's needs are much shorter."

They wanted him, for example, to look at changing the fatty acid profile of pork, based on the diets being fed the animals. Result? "We're moving towards more heart-friendly pork based on feeding regimes that we've created."

He has looked at feeding whole soybeans to pigs. Producers were concerned because, anecdotally, they thought the process might soften the fat. Hurnik fed the animals specific diets and analyzed the meat and fat, finding

that the fatty acid profile of the meat was actually much closer to ideal if the pigs were fed soybeans. "How much soybean do you feed, for how long, and when. We've done all that work and it's been published. Now, we're working with a company that's interested in taking that and putting it into the marketplace as a natural product that can carry a premium."

Another company wanted to bring to market an antibiotic alternative—a compound to boost the immune system of animals. They wanted to know whether it would work in pigs. It does, concluded Hurnik.

DNA traceability is another issue that gives reassurance to consumers in the store that "if you buy this pork chop, what's in it is what's on the label." The animal can be tracked from farm to fork.

On the potentially more controversial topic of genetic modification to either feedstuffs or food products—so-called "Frankenfoods"—he says he has no feelings about it. "It used to get an emotional response from people, customers. I want to provide the science. I want to be in the middle."

### Service to the community

"I'm really after making sure that agriculture has a competitive place and that on PEI it remains competitive," Hurnik adds. "It is still at the centre of the economy. And you can't pigeonhole it like some economists try to do; it doesn't work that way. The relationship between agriculture and society is complicated. If tourists come here they want to see green fields and farms. If you marginalize agriculture you won't have the tourist base. Everything is integrated."

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He says he has fun doing what he does. "My work wouldn't fit classical academic activity. But I'm here for a reason, part of which is for the students, and every student wants to have the feeling that he or she engages in something that has some relevance in the world. I think this gives students a lot of employment options. We need a system of research and a system of doing science that also answers short-term, specific, industry needs.

"The University should be there to service the local community," he believes, "to train people and put them back into the community, in the service of the community."

*If we want to train highly qualified scientists in the animal health area, then we have to have extremely active and high-quality research programs ongoing. The two go hand-in-hand. About 70 to 80 per cent of the support for our graduate students comes from research grants that faculty obtain. Faculty research grants and contracts are extremely important when it comes to training future scientists. The Atlantic region is probably not too aware of the breadth and depth of research and graduate training activity that go on at the AVC. This research report will help with that goal.*

*Jim Bellamy  
Associate Dean  
Graduate Studies and Research*

*Obtaining a position within the PhD program at the Atlantic Veterinary College at UPEI was an important opportunity for me to expand my research skills. This development will enable me to contribute to practical solutions to overcome problems limiting health and production of cattle in my country of origin, Colombia. AVC has a great reputation and well-qualified professors. I hope at the end of my program to become more independent, reliable, and competent as a research scientist in order to contribute to the development of my country.*

*Alejandro Ceballos, DVM, MSc  
PhD candidate  
Department of Health Management*

