

Genetically modified pork one step closer to dinner table

BY SARAH SCHMIDT, CANWEST NEWS SERVICE FEBRUARY 19, 2010



A pig waits for food at a farm in Sodico, a suburb near Libreville on May 1, 2009.

Photograph by: AFP, via Getty Images

OTTAWA — Genetically engineered pigs are one step closer to becoming meat on Canadian kitchen tables with the federal government poised to declare that they do not harm the environment.

Canwest News Service has learned Environment Canada has determined that Yorkshire pigs developed at the University of Guelph are not toxic to the environment under the Canadian Environmental Protection Act. The official declaration will be made on Saturday.

This is the first regulatory hurdle to get the pigs to market, which will be a first in the country if Health Canada approves Guelph's pending application, submitted last year, seeking a government declaration that its transgenic pig is fit for human consumption.

The so-called "Enviropigs," the world's first transgenic animal created to solve an environmental problem, were created in 1999 with a snippet of mouse DNA introduced into their chromosomes.

The pigs produce low-phosphorus feces.

The Guelph scientists were able to reduce phosphorus pollution by creating a special composite gene that enables digestion of a normally unavailable form of phosphorus. This allows the pigs to produce manure that is 30 to 65 per cent lower in phosphorus than found in the manure of regular pigs — blamed for polluting surface and groundwater when raised in intensive livestock operations.

"The university has successfully satisfied the requirements to allow the line of transgenic pigs to be produced and farmed using appropriate containment procedures. So that's the step we're at right now," said Steven Liss, associate vice-president for research at the University of Guelph.

"As part of an overall goal, I think it's fair to say, yes, absolutely, the university researchers involved thestarphoenix.com/story_print.html?i...

were very driven and passionate about addressing an important environmental problem at the same time supporting production of food stock and to bring forward a more sustainable and environmentally friendly option to do that."

Liss declined to speculate how long it will take Health Canada and the Food and Drug Administration in the United States to consider the university's submissions seeking approval for human food consumption and subsequent commercialization.

"It's not only a learning process to the university, but it's also a learning process for the regulatory bodies that are, for the first time, really dealing with these novel technologies and the development and approval of transgenic animals," said Liss.

Patricia Howard, a biotechnology and public policy expert at Simon Fraser University, doesn't think Health Canada is up to the job — nor does she think the Canadian public is ready to embrace transgenic pork on their dinner plates anytime soon.

"If you were to start talking about genetically modified pigs entering the food supply, I think eyebrows would go up. A lot of people would have a lot of questions," she said.

"I imagine most people would applaud the idea of trying to create a pig whose manure wouldn't be as serious a contaminant to the environment. However, a lot of people who have concerns about pig production will raise the question, 'Well, aren't you just trying to find another way to continue to produce pigs in these enormous confinement facilities?'"

Howard added there's a bigger problem than consumer confidence.

"My own assessment of Canada's ability to assess is that Health Canada is not in the right shape to be able to do this kind of assessment. I'm not impressed at all," she said, pointing to the way genetically modified crops have been given the green light.

"Health assessments weren't done. Health Canada simply read the reports of the companies, but then they say whether they think it was adequately done," said Howard.

Currently, there are no products derived from genetically engineered animals approved for food or feed use in Canada or anywhere else in the world.

In a joint statement issued Thursday to Canwest News Service, Health Canada, Environment Canada, and the Canadian Food Inspection Agency, which is charged with considering applications of genetically engineered products for use as animal feed, said all applications are "subject to a rigorous, science-based review process" before being approved for use in food or feed or for release into the environment.

And should the Enviropig "receive full regulatory approval in the future, other essential considerations such as consumer and market acceptance have to be made before deciding if commercialization should proceed."

Guelph's Enviropig research project has received funding from both industry and government, including Ontario Pork, the Ontario Ministry of Agriculture and Agriculture Canada.

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In the United States, the Food and Drug Administration last year paved the way for Americans to eat genetically engineered meat and fish when the regulator ruled that transgenic animals will be considered as an "animal drug" — and held to the same requirements already existing for conventionally bred animals treated with hormones or antibiotics.

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