

**Innovation has its roadblocks:  
Expert panel gets real about the challenges of developing the next big thing**

By Lisa McLean for Soy 20/20

An innovative food product with health benefits is a good start for success in the Canadian marketplace.

But to be truly successful, entrepreneurs and product developers need to allow plenty of time for regulation, red tape and consumer acceptance of technologies.

That was the message to industry representatives and academics gathered at the 25<sup>th</sup> Canadian Conference on Fats and Oilseeds held in Quebec City October 5-6.

The conference hosted a panel discussion of four agriculture and food industry representatives with expertise in regulation.

Mary Dimou, senior analyst for Bioenterprise, led the session, noting that while her company – a non-profit business accelerator for ag-bio based businesses – is innovation-driven, it maintains a neutral position on issues associated with technologies such as genetic modification (GM).

“GM is a viable, innovative, and existing solution that is highly regulated. It’s a sustainable option for entrepreneurs, but it produces two extremely polarized viewpoints,” said Dimou.

Dimou cited the Arctic Apple, which she says contains a ‘knock-down technology’ to reduce browning. The Arctic Apple has been met with significant opposition from anti-GM consumer groups fighting to keep it out of Canadian stores.

Ian Affleck, managing director in science and regulatory affairs for CropLife Canada, echoed Dimou’s sentiment about consumer understanding.

As the trade organization representing manufacturers, developers and distributors of plant science technologies, CropLife Canada traditionally considered farmers its number one audience, Affleck said. In recent years however, the organization has realized it has a larger role to play in talking directly with consumers too.

“Plant breeding techniques have evolved over 10,000 years,” Affleck said. “But if consumers don’t understand how breeding has evolved over the years, they are not likely to understand how we took the next step. Communication, transparency, and education are key to developing consumer acceptance and have become high priority.”

Affleck noted that in 2014, GM crops were grown, imported or used in field trials in over 70 countries around the world.

“Each of those countries has a separate safety review on that product – that’s 70 separate safety reviews on GM products,” Affleck said.

Croplife Canada supports an online resource, GMO Answers, which encourages consumers to ask anything about genetically modified organisms. Website administrators pair question-askers with credible scientists to provide science-based answers.

“Instead of handing them a fact sheet in our words, we’re enabling them to have a conversation in their words,” said Affleck.

Ryan Simon, senior scientific and regulatory consultant with consulting and technical food services firm Intertek, says what consumers say about GM foods is not reflective of their purchasing behaviours, as illustrated in various studies worldwide.

“Questionnaires and consumer surveys are poor predictors of consumer behaviour,” Simon said. “But there remains a significant unwillingness of any food company to market foods containing GM ingredients to consumers.”

Simon points to what he calls “second-generation” GM ingredients with health benefits – like high oleic acid soybean oil -- as the opportunity to turn consumer opinions on GM technology around.

He notes so-called “first generation” GM crops directed most of their benefits at the farmer. But bio-fortified foods – particularly products aimed at addressing health issues in the developing world – may be the ticket to turning opinions around.

“Will second-generation GM products be the products that change the public’s attitude on GM foods? Only time will tell. But I think there is tremendous opportunity for companies,” Simon said.

Despite a rapidly-evolving food landscape that provides new and improved foods with human health benefits, entrepreneurs and product developers have a long road to market health foods as such.

Rachel Rebry, associate director of nutrition and nutraceutical research at Nutrasource Diagnostics Inc. in Guelph said food health claims take time.

Rebry worked with industry to achieve the recent soy protein health claim spearheaded by Soy 20/20, which acknowledges that consumption of protein-rich soy foods has been proven to lower cholesterol levels.

Rebry outlined the four different types of health claims available to industry: general health claims, function claims (including nutrient function and probiotics claims), therapeutic claims, and disease risk reduction claims.

“The approval process for new claims with Health Canada is lengthy,” Rebry warned. “Industry should budget at least 12 months, and use government as a resource during the pre-submission phase.”

Despite the challenges associated with bringing new agricultural technologies to market, Dimou said the future is bright for ag-tech entrepreneurs.

“In some cases, angel and venture investment groups are opening new arms or funds specifically in agricultural technology,” Dimou said. “It’s a good time to be an agri-technology entrepreneur.”

The Canadian Conference on Fats and Oilseeds was jointly organized by the Canadian section of the American Oil Chemists’ Society (CAOCS) and the Consortium for Research and Innovation in Industrial Bioprocesses in Quebec (CRIBIQ).

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