

# CHEF-DIRECTED PRODUCT INNOVATION WILL BENEFIT PULSES

NAIT's new Centre for Culinary Innovation sees plenty of opportunity to research and develop new uses for whole pulses and pulse ingredients.

How can you put into words the enjoyment associated with a meal of wheat-based pasta? The bite, the texture and the fill-you-up goodness is known to most of us.

For someone on a gluten-free diet, however, wheat-based pasta is off limits. As for most of the gluten-free pasta alternatives now available, Dana Gibson doesn't think much of them.

"I've tried them, there's not great selection and not great quality," said Gibson, Director of Business Development for the new Centre for Culinary Innovation at NAIT in Edmonton. "The ingredients they're using in order to be gluten-free just don't have that bite that you get with pasta. It's just not the same."

Built at a capital cost of \$2.5 million, the Centre's Research Kitchen has 12 product development stations that are dedicated to applied research and chef-driven product development.

As Gibson explains, the Centre is looking to the future of what people want to eat, and pulses will feature in a major way.

"With the projects we are currently running, 70% of them relate to plant-based ingredients," Gibson said, "and of those I'd say over half are pulse-based. There's lots of interest in yellow and green field peas, faba beans, kidney beans and a little bit in mung beans."

## Pasta and ready-made meals close to testing

Gibson's NAIT colleague Dr. Paolo Mussone, Bio/Nanotechnology Research Chair, has already characterized the surface structure of the pulse-based pasta, developed by Chef Maynard Kolskog. He's now in the process of comparing the pulse-based pasta with traditional wheat-based pasta to see how the different ingredients affect the structure of pasta. This pulse pasta is gluten-free and should be well-suited for a ready-meal product, such as lasagna, that food retailers are scrambling to bring to time-crunched consumers. Sensory testing starts soon.

From there, Gibson sees many possibilities for pulses, which combine high protein, gluten-free status and also offer the kind of 'mouthfeel' many gluten-free products currently lack.

"Our Certified Research Chef, Maynard Kolskog, did his first research project in collaboration with Alberta Pulse Growers to develop some sous-vide ready meals with pulses," Gibson said. "It was very successful, and I think it sparked in him a passion for pulses and the utilization of Alberta-grown products."

The Centre for Culinary Innovation can take on product development research and can make its facilities available to food companies that want to test new ideas. Food innovation, after all, needn't be restricted to large multinationals. The Centre can help smaller Alberta-based companies compete.

All this research and development should boost the fortunes of food companies that embrace pulses, and of course the growers who supply them.

"Freson Bros. is one retailer who's very interested in developing products that use Alberta-grown ingredients and this type of product would fit right in and would get Albertans eating more pulses," Gibson said. "Pulses are ideally positioned as a great source of protein that's gluten-free, hearty in taste and very functional to work with."

*Research Chef Maynard Kolskog in the Department of Culinary Arts at the Northern Alberta Institute of Technology is a culinary instructor specializing in molecular gastronomy with a passion for pulses.*

