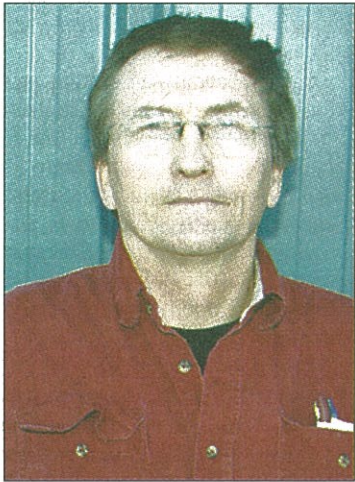


Customized agricultural practices

Beaubier farmer suggests a revolution for growing produce



MORRIS JOHNSON

Farming today, and in the future, should no longer be as simple as injecting seeds in the ground and harvesting them a few months later.

Though it's hard to conceive initially, one farmer from Beaubier fully believes that farmers can work hand-in-hand with nutritionists and scientists to customize what they grow to what people need to eat to stay healthy, and tells fellow producers, "Teach your children to be Pharmers ..."

Morris Johnson of Beaubier used the nickname, "Pharmer Mo from LA North" in June of 2010 in a presentation to an audience of scientists, businessmen, medical researchers and futurists at a conference held at Harvard University, whose theme was "rise of the citizen-scientist".

Last December he presented a paper about the merits of ownership of one's body as a piece of personal property to a conference themed "colloquium on the law of futuristic persons". Just last month he accepted a seat alongside 20 or so academics and business persons on the "Com-

mittee on Advanced Technology" of a scientific research funding agency called "thecureisnow.org".

So what could possibly connect a Beaubier farmer, who works in the oilpatch on the side, to folks who have Phd's, MD's, MBA's or multimillion dollar corporations?

The answer: Food that might make you healthier and ways to help people help themselves to live longer.

Morris raises hemp and bufaloberries, and as he worked to make money from these things he spent great amounts of time studying the links between food/supplements/pharmaceuticals/environment and health. Scientists call this nutri-epigenomics. The rest of us call it healthy eating.

Johnson said the thing that bugged him was how to make it possible for people to understand what exact nutrients to combine with which exact food supplements and pharmaceuticals in a way that would indeed make it easier for people to personally live longer and healthier, and how agricultural producers including himself could make a living satisfying this as of yet "unmet need."

"Farmers who produce omega-3 eggs or blueberries or marigolds or broccoli sprouts or lentils, to name but a few examples, could greatly expand their markets if consumers felt confident that they could buy just the right combinations of these foods and make them into tasty, appealing meals at a reasonable cost, and believe they were improving the chances they would live healthier and longer than their parents," he explained.

Part of the challenge, he add-

ed, is that scientists have locked away in research journals information about many things that can be found in foods and supplements can alter people's epigenomics. He suggests there should be a lot more sharing and opening up of this kind of information, which would benefit everyone.

"If you think of your genes as musical instruments in a gigantic orchestra of chromosomes, epigenomics would be the musical score that a conductor would use to create a musical symphony," explained Johnson.

"Genes can be turned on and off by combinations of compounds found in foods, cosmetics, supplements and drugs. Think of a beautiful piece of music as health and a sour-sounding piece of noise as illness and disease. You are the conductor and the audience is the cells, tissues and organs of your body. The more interesting and harmonious the music, the longer the audience will stay to hear it ... or in other words, the longer you will live."

Talking about how one's genetics work in one's body, he said, "Your body has the equivalent of a giant bank of circuit breaker switches that tell your cells what kind of cell they are and what they can or cannot do and when they can reproduce, with whom they are to cooperate and associate with or if they should die. This program we call life at first look appears quite complex."

Johnson suggests that most people do not want to be computer programmers to know how to eat properly; they just want to feed themselves and wake up feeling good in the morning.

In a presentation he made to Harvard University two years

ago, he explained his concept for a tool that software scientists and engineers could create.

This tool, as he envisions it, would be "a giant open-source archive of all of the data relating to everyone's health: every test, diagnosis, record of diet, and medically measurable piece of data a person generated."

Doctors, hospitals, pharmaceutical companies, governments and universities all have useful data. Johnson suggested that if it were possible for someone to compare their history with that of millions of other people and have a complex computer program suggest what they might eat or drink, the result might improve their current health or perhaps keep them living longer.

Johnson feels that an organization like "thecureisnow.org" could develop such a prototype system — a sort of medical Google/Facebook hybrid. Over the world a number of similar organizations are all working on complementary solutions to give analytical tools the capacity to make medical recommendations.

Consumers can then drive the agricultural producers and food and supplement processors to grow and deliver to them those things that they feel confident will do no harm and may just possibly make them healthier for longer than they ever imagined.

So "Pharmer Mo" and his thousands of neighbours can make a better living growing hemp or whatever else people ask for. "Farmer Joe down the road" Processors will have to convert all these raw materials to foods designed to be combined by individuals to suit their personal requirements for a nutritional program that is just for them.

Over time the distribution and consumer food sales networks can adapt to make a mass market out of personalized nutrition.

The public health care system will benefit as people who age with fewer ailments allow resources to be reallocated to supply types of health care that would be otherwise unaffordable.

Agriculture has evolved from hunting and gathering to a highly efficient mass production system. The next phase may be one where information technology enables agriculture to fulfil the old saying, "make thy food become thy medicine".

Due to the evolution of science, said Johnson, "we now understand that your body really does remember what you, your parents and grandparents ate and it is that which contributes as much to your children's future health as their DNA.

"The same way we have evolved from scattering seeds in the dirt and scratching them over with dirt to counting exact numbers of seeds and placing them exactly where they grow the best, we will evolve to farm in ways that deliver health span and lifespan to consumers of ordinary foods as part of an ordinary day's meals," said Johnson.

"As we think of agriculture and farming again for another year, that is my message: making a living as a farmer has a bright future. Send your kids off to school but try to give them that link that may bring them back with neat skills to grow the next generation of farms in ways that are both profitable to them and immensely beneficial to the 97 per cent of folks who have hardly ever walked through a farm field or pasture," he said.