## YUKON NEWS

WEDNESDAY, DECEMBER 21, 2007

Commentary

By Tom Rudge

On December 10, Minister Archie Lang responded to the petition asking for a 10 year moratorium on the planting of genetically engineered(GE) seeds in the Yukon. This perfunctory statement falls short of supporting the over 1500 people who signed the petition.

Minister Lang correctly states that the issue of GE seeds is a national issue and that scientists have gained the unprecedented ability to genetically engineer plants to grow with specific characteristics. What he fails to mention is that the vast majority of these scientists work for multinational agribusiness corporations and the specific characteristics are of benefit to these same corporations. The majority of GE seeds are designed so that they can be used with the company's pesticides and herbicides.

Genetically engineered seeds have DNA, the building blocks of life, from different species within their makeup. The Flavor Saver tomato was developed by inserting a gene from a flounder fish. The tomato was supposed to taste better because it could be picked ripe and still be shipped long distances. Consumers didn't agree and it was taken off the market.

The ability to substitute genes is something that many scientists around the world are questioning now. It is not the small piece of transplanted gene that is likely to cause harm. The concern is the potential for harm that arises from the process of introducing this gene along with the rest of the material needed to make it work into a cell and then releasing it into the environment. It's unknown what happens within cells when foreign genes are added. The many other added genes code for turning the gene on or off and for how much it should be expressed. Many genes are attached to a virus so it will enter into the cell effectively. All of these added "features" might help to express the required gene but also have unknown interactions with the other material within the cell.

Minister Lang explains that research on this technology has been going on for years and governments have been relying on their provincial and federal colleagues to understand the impact of this technology on human and environmental health. Unfortunately the biggest issue worldwide is that there haven't been any long term studies on health affects. The Royal Society of Canada, a national body of distinguished Canadian scientists and scholars, was commissioned to look into the technology by the government of Canada. Their 200 page report delivered a thorough investigation and delivers at least 60 recommendations for precaution in food biotechnology. So far, few, if any, of these recommendations have been implemented.

Minister Lang states that federal regulatory agencies haven't banned this technology and that it's been on the store shelves for years without concern. There have been no long term studies done specifically looking for health issues to date. It's pretty hard to find any problems when no one is even looking. Since labelling of GE ingredients is voluntary and to date no one has volunteered, any health effects noticed by consumers would not be attributed to GE food. Minister Lang says the Government will explore the possibility of distinct labelling. With over 90% of Yukon's food being imported from outside, Minister Lang will have a lot of people to convince on the labelling issue. Meanwhile, we could say, "let's not grow it here". At least consumers would know that any food grown locally would be GE free.

Minister Lang's statement about pollen only being transported short distances didn't take into account transport by any means other than a light breeze. The public would be interested in seeing the scientific

support for this statement. Honey bee producers brag about how far their bees will travel for pollen.

So far, development of GE seeds has focused on commodity crops like cotton, corn, canola and soybean which don't grow well in the north. So, although there are currently no GE crops being grown in the Yukon, there is nothing to prevent someone from planting something in the future. There have been no studies done in the Yukon to see if wild or naturalized plant species would cross pollinate with GE crops. In other jurisdictions, gene "escape" has been found. Open field trials of alfalfa and wheat are scheduled in the US. It might not be long before they are in Canada. Both wheat and alfalfa are grown in the Yukon.

Although the Yukon is not likely to become an exporter of agriculture products in the near future, being a GE free zone means more than exporting non-GE seed. The Yukon reputation for pristine wilderness, clean air and water, and healthy soil would be enhanced. As demonstrated in Powell River, BC and Mendocino County, California, the Yukon would gain worldwide recognition for its strength in protecting the environment and support of the local population. This petition is about people's right to choose to effect a positive change in what we eat – and how we live.

Animal feed is currently shipped in from all over the continent to supplement our excellent hay crops. Most of this bagged feed for poultry, hogs, livestock contains GE products without any labelling required. This means that unless people buy certified organic feed, the animals we are raising for food are probably contaminated with GE feed. One more reason to grow more local feed with a GE free status. Unlabelled pet food can also contain GE ingredients.

Asking for a moratorium on planting GE seeds in the Yukon will not limit production. If anyone thinks these multi-national seed companies are going to develop a crop specifically for a few farmers in the north any time soon, this is a serious disconnect. The corporations have yet to develop one single genetic improvement on field crops for nutritional or health benefits. Production of these new technologies is based on profit margin.

To assume there would be no GE crops grown here without a moratorium in place is like saying something is grown organically but without certification. Without the regulation in place, what accountability or responsibility is there? How can consumers trust that products grown here are safe?

This technology threatens so many areas of our lives and cannot be passed off as just novel crops. Why do countries around the world refuse shipments of this seed technology if it is so good? Why isn't labelling mandatory in North America? Is it because consumers would refuse to buy it if they knew what was in it? The impact of these technologies have been devastating in countries other than Canada. As the government experts at the North of 60 Agricultural Conference pointed out, when Canada's regulations are deemed too restrictive for some experimental technologies, Canadian companies just move the burden of dealing with future problems to a less developed country. Do we have to see something drastic happen before the government is willing to take action?

The government says it will work with our agricultural industry to explore producer-led solutions for local agricultural regions to implement genetically engineered seed-free zones. This sounds like the government is unwilling to take the initiative to implement a moratorium although over 10% of the voting population is asking for it. The isolated agricultural pockets in the Yukon are not large enough to withstand the introduction of any GE crops within that area. For agricultural land to be protected, the moratorium must include the entire Yukon. As the government experts brought up for the North of 60 Agricultural conference said, "There is no such thing as zero tolerance when it comes to containment of genetically engineered seed".

Once GE crops are introduced there is no way to take them off the shelf in the same way you can remove a bad drug. These genetic constructs will be in our soil forever and no one knows the long term

benefits or drawbacks. It has been shown that pollen will enter the ecosystem in water bodies and aquatic lifeforms, the bottom rung of our food chain. It has been shown that these constructs survive the gut acids of insects and are passed on through the food chain.

The government expresses support for the agriculture industry but this petition isn't just about farming. This is also about consumers, tourism, environment, culture, wildlife, economics and our children's future.

Minister Lang states that government "supports our agricultural industry and an industry that supplies local foods, contributes to community well-being, drives the economy and is environmentally sustainable". There is nothing sustainable about GE seeds. They are bought and sold under contract and cannot be saved. They will never belong to the farmer nor will they be available to the consumer at the farm gate.

The public has the democratic right to ask the government to act upon something. Whether the government acts or not is their right. To justify the decision not to have a moratorium based on scant scientific fact and regulations outside of the Yukon, goes against what voters want. Just because nothing is apparent now does not mean we won't suffer the effects after several generations. Ask the survivors in areas of Viet Nam where the defoliant, agent orange, was used. Three generations later, effects are still being felt and it's the same company that monopolizes the GE seed industry that produced the defoliant. The public has the greatest leverage to change the future for our children through the election process itself. There is no science there, it's purely public opinion.

The petition was structured to obtain support for the government to make a positive decision and the campaign was based on consultation with the government, consumers, producers and advocates of safe food. Now the Yukon Government needs to move forward and help keep the Yukon and its population safe. It's time to be proactive and legislate the moratorium so there's time to explore the drawbacks or any possible benefits of GE technology in the Yukon before we lose the chance.