



MARKET STATUS UPDATE

— FOR GROWERS

GM APPLES and GM APPLE TREES in CANADA

Summary

The first-ever genetically modified (GM) apple will be test-marketed in the US this year. It is not yet being sold in Canadian stores. A few orchards of GM apple trees have been established in the US, but there are none in Canada yet.

Background

In early 2015, Okanagan Specialty Fruits (now owned by the US biotechnology company Intrexon) got approval for its genetically modified (GM or genetically engineered) non-browning Golden Delicious and Granny Smith apples in both Canada and the United States. The US government has also just approved the company's GM Fuji apple. The GM apples all carry the trademark name "Arctic."

The Honeycrisp apple took 20 years. We don't want to take 20 years; we want to take five.¹

— Neal Carter, President, Okanagan Specialty Fruits,
January 2016

Market Launch

US TEST MARKET 2017

- » The company is set to test market the GM apples in ten stores in the Midwest US this spring.
- » They will be sold in bags of sliced apples.
- » They are all GM Golden Delicious apples.
- » They will not be labeled as genetically modified. They will carry the "Arctic" company logo and a digital QR code (readable by smartphones) that will provide more information.

NOT IN CANADIAN STORES YET

The GM apple is not being sold in Canadian stores yet.

Okanagan Specialty Fruits (OSF) President Neal Carter has said the GM apples may not come to Canada before 2019, and likely in the form of ready-to-eat slices: "I don't know if we'll ever see them loose on the produce shelf. Maybe packaged in small bags or plastic containers."²

¹ Laura Robin, "From Tree to Table: The Arctic Apple is Ready to Blossom," Ottawa Citizen, January 22, 2016.

² Ibid.

GM Tree Plantings

- » OSF has said that they will plant over 870,000 GM apple trees between 2016 and 2018.³
- » GM apple orchards have been established in the US but, according to the company, not yet in Canada.
- » The company will plant its own orchards as well as contract growers to plant GM trees. **It will own all the trees and apples.**⁴
- » The company is not disclosing planting locations, or names of growers, packers or retailers of the GM apples. The Canadian government will not be tracking where or how many GM apples trees are planted.
- » **The GM apples are not for sale in nurseries in Canada.**

PLANTINGS IN THE US

Orchards of GM apples have been established in Washington State and New York, where field tests were taking place for years in advance of the 2015 approval. There were no such test plots in Canada (because of protest from Canadian growers).

- » As of 2016, 15 acres of GM apples had been planted in the US.⁵
- » June 2016: "So far, the company has contracted with two large, well-established growers, one in Washington, one in the Eastern U.S."⁶

PLANTINGS IN CANADA

The public is reliant on Okanagan Specialty Fruits for information about plantings in Canada:

- » In March 2015, when the GM apple was approved in Canada, company president Neal Carter said there would not be significant plantings until 2017.⁷
- » In January 2016, Carter said only a handful of the GM "Arctic" apple trees are being grown in Canada, in a greenhouse in Summerland, B.C., where he has his own orchard.⁸
- » In November 2016, Carter told the Certified Organic Associations of BC (COABC) that, "plantings in BC will not occur for several years or more due to the high cost of land and shortage of larger land parcels. When plantings in BC do take place, all trees and fruit will be under the direct oversight of OSF on either our own land or that of growers specifically contracted to produce fruit for us."⁹

The Future

NEXT GM APPLE VARIETIES

The company is currently growing GM "Arctic" Granny Smith and GM "Arctic" Golden Delicious apples, but is trying to quickly diversify with other GM apple varieties:

- » The GM "Arctic" Fuji apple was approved in the US in September 2016.
- » The company is planning a GM "Arctic" Gala next, and has also mentioned plans to produce GM McIntosh and GM Honeycrisp apples.¹⁰

MARKET PROSPECTS

The future of the GM apple in Canada will be influenced by the success or failure of the retailer test market in the US. However:

- » Many small retailers in Canada have signed a pledge to never sell the GM apple.
- » Major grocery chains in Canada have told concerned consumers that they have "no plans" to carry it at this time.

LABELLING

Private Members Bill C-291 to establish mandatory labelling of GM foods in Canada will be debated in Parliament in March/April 2017. For updates and action check www.cban.ca/labelling

www.cban.ca/apple

To discuss or share information, please contact

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3 Intrexon's (XON) CEO Randal Kirk on Q3 2016 Results - Earnings Call Transcript, November 9, 2016.

4 Ross Courtney, "The next GMO apple," GoodFruitGrower, June 3, 2016.

5 Ibid.

6 Ibid.

7 Associated Press, "Canadian, U.S. agencies approve genetically engineered Arctic Apples," March 20, 2015

8 Laura Robin, "From Tree to Table: The Arctic Apple is Ready to Blossom," Ottawa Citizen, January 22, 2016.

9 Letter from Neal Carter, Okanagan Specialty Fruits, to Walter Makepeace, Certified Organic Association of BC, November 1, 2016.

10 Laura Robin, "From Tree to Table: The Arctic Apple is Ready to Blossom," Ottawa Citizen, January 22, 2016.