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Canada

What's New in BC

SPOTLIGHT ON BC : BERRIES

(Blueberries and Cranberries)

SUMMER 2010

Blueberries

Canada's blueberries are commercially grown in both wild and cultivated varieties, making them unique, as no other Canadian fruit shares this distinction.

British Columbia leads production of cultivated blueberries in Canada, and is the second largest producer of highbush (cultivated) berries in the world. In Canada, British Columbia grows the majority of highbush berries (93%), but they can also be found in Ontario, Quebec and Nova Scotia. In B.C., about 19,000 acres of blueberries were farmed in 2009, producing approximately 88 million pounds, with an approximate farm gate value at $53 million. In terms of overall production, this represents an approximate increase of 29% over 2008 and an 60% increase over 2005.

Highbush berries are harvested earlier than lowbush berries and are larger and less perishable, which makes them highly suitable for shipping to retail markets.

Most blueberries are sold to processors or fresh packers that grade, pack, and market the berries. Because of recent high demand for fresh fruit, over 50% of the crop is being sold to fresh markets and the remainder is sold for processing. Blueberries may be packed as IQF (individually quick frozen), block frozen in various pack sizes, or processed as purée or juice.

Pricing is largely determined by the supply of blueberries throughout North America. Michigan has a significant influence on the market prices because of its large production. In B.C., there is limited production of organically grown blueberries, which generally commands higher prices.

In 2009, national exports of fresh cultivated blueberries, mainly from B.C., were about 30 million pounds, valued at $54 million. The largest export market was the United States, followed by Japan and the United Kingdom. In addition, 35 million pounds of frozen cultivated blueberries worth $39 million were exported. The largest export market for frozen cultivated blueberries was the United States, followed by Japan and Australia.

To learn more about Canadian blueberries, please visit: http://www.marquecanadabrand.agr.gc.ca/tools-utils/5318-eng.htm

Cranberries

British Columbia is currently the second largest producer of cranberries in Canada. Cranberries are B.C.'s largest berry crop, with 82 million pounds of fruit produced in 2009, valued at $47 million at the farm gate. This accounts for up to approximately 12 percent of cranberry production in North America.

There are approximately 88 growers in B.C., growing 95 percent of B.C.'s cranberries for the processing market, with the remainder sold as fresh berries. Of all the cranberries harvested in Canada every year, about 60% are grown for Ocean Spray, to which most B.C. cranberry growers belong as a cooperative.

In B.C., the cranberries produced for Ocean Spray go to a receiving station where berries are cleaned and from there they are sent to U.S. freezers to await processing. Ocean Spray, a Massachusetts based company, markets nearly all the cranberries grown in North America. Lucerne deals with the four to five B.C. growers that are not affiliated with Ocean Spray.

Most cranberries have been traditionally used in the juice market, but more recently licensed vendors have emerged selling specialty products such as wine, dried sweetened cranberries and fresh and frozen fruit. Approximately 90% of B.C. cranberries are shipped to the US for processing and marketing by Ocean Spray. Off-shore markets for cranberry products include Australia, France, Germany, the United Kingdom, and Mexico. New market development has been initiated in Korea.

To learn more about Canadian cranberries, please visit: http://www.marquecanadabrand.agr.gc.ca/tools-utils/5321-eng.htm

Media Monitoring

Blueberry Thrill; Delicious Fruit is Flush With Antioxidants That Help Us Age Well

Vancouver Sun - July 14, 2010

Blueberries are a superfood, flush with anti-oxidants. The dark blue berry puts British Columbians on good footing for aging well, avoiding heart disease and stimulating healthy brain function.

According to the BC Blueberry Council, we produce about 80 million pounds of the stuff; and since we've been at it so long, we do a darn good job of it. We're beaten only by Michigan. Apparently, this province has perfect conditions for the crop, with cooler nights and enough heat during the day.

She added that the early berries might look a little bit smaller than usual because of those pollination problems, but will be the same sweet fruit consumers are familiar with."Taste-wise, they're good. They're still sweet and excellent for you," Driediger said.

Blueberry farmers are anticipating an excellent crop this year, despite the wet dreary June, some late touches of frost, and hail that hammered the fields in some areas of the Fraser Valley."It's really good, considering weather-related pollination issues," Rhonda Driediger of Driediger Farms said.

There are about 15 varieties grown here, but, truth to tell, only the true-blue blueberry fans would notice a big difference. To most of us, blueberries are blueberries. Rekas and Dukes are common early varieties, and come mid-season, the Blue Crop will take over.

You'll find blueberries at most grocery stores now, but if you want to shop at the farm gate, you'll find some of the local blueberry growers listed at: www.bcblueberry.com/site/find_bc_blueberries/farm_gate_sales.html

No-freeze Drying Signals a Revolution; UBC Startup Develops a Faster, Better and Potentially Lucrative Way to Preserve Food and Medicine

Vancouver Sun - July 7, 2010

On the display table, there are bags pinkish cantaloupe, fire red chilies, forest green brussels sprouts, beige bananas and more than a dozen other dried foods including fish and shrimp.

The foods have a few things in common. They are in their pure form -- free of additives, colouring agents and preservatives, they retain most of their original nutrition and colour -- and they were all produced in a research laboratory at the University of British Columbia using a leading-edge dehydration technology that its developers hope will turn the processing of food, food ingredients, and even vaccines and antibiotics on its ear. Yaghmaee, who has a doctorate in food science, and her boss Tim Durance have been fine-tuning the technology for more than a decade, taking it from the realm of theory to practical science and engineering.

A company formed around the science, EnWave Corp., has sold one dehydrator to a local blueberry producer and is collaborating with Danisco, a leading global producer of food components, on pilot tests for the manufacture of probiotics for yogurt.

Earlier this year, the Canadian Institute of Food Science and Technology recognized EnWave with an award for "outstanding applied development in the food sector." The technology is straightforward in concept, involving a microwave generator not unlike the one you've got in your kitchen, connected to a vacuum chamber where the food is rotated in a manner similar to a front-load washing machine in order to ensure even exposure to the microwaves. The key is the vacuum chamber, which is where Durance and EnWave co-CEO John Mc-Nicol believe their technology has a significant edge over conventional freeze-drying.

"When you put something under vacuum it lowers the boiling point. Just like going up a mountain, water boils at a lower temperature because the pressure is lower," Durance explains during a visit to the company's test lab. "We reduce the pressure [in the vacuum chamber] until the boiling point of water is about body temperature.

The problem with vacuum is that it reduces the transfer of energy -- it doesn't cross a vacuum well, except for radiant energy. So we use microwave as a source of radiant energy.

Rapid dehydration in a vacuum means there's no time for food to spoil: no opportunity for oxidization to turn apple slices brown because there's no oxygen to set it off, no moisture to allow micro-organisms to release enzymes that cause food to decay.

"You will never get anything growing on it," Durance said. "You won't get bacteria or mould growing if the water level is low enough. So we dry it to the point where microbial spoilage is not a problem, not an issue.

"Drying is an excellent preservative. Actually, it's the same preservative as freezing which removes the water as ice -- while drying just removes the water."

The difference is that the REV method is faster than freeze-drying by several orders of magnitude. However, even after the technology proved viable for food, EnWave foundered both as a potential commercial enterprise and as a publicly traded company.

To find out more about EnWave, visit: http://www.enwave.net/index_php?content=nutarev