

British Columbia

Organic Grower



In this issue:

Celebrating Organic Week, Steps to Starting a Pastured Poultry Operation, Learning to Live with Wildlife, GMO Alfalfa Update, Cow Behaviour... and more.

Journal for the Certified Organic Associations of BC - Fall 2013

Volume 16, Issue 4 (\$5.00)



Hazelnuts are Back!



New orchard coming into production in Oregon. 'Jefferson' on left, 'Yamhill' on right. Credit: Thom O'Dell

by Thom O'Dell and Haley Argen

Hazelnut trees, newly available after being in short supply in BC for almost a decade due to the impact of Eastern Filbert Blight (EFB), are regaining interest from growers—both those with existing orchards and those wanting to start one. New varieties selected for resistance to EFB, high yields, and other desirable traits are now in evaluation trials in BC, and new orchards are being planted around the Lower Mainland, Sunshine Coast, Gulf Islands and beyond as word of the availability of blight-resistant varieties spreads. Hazelnuts are back!

An Ideal BC Crop

There are few places in the world as suitable to hazelnut orchards as the southwest corner of BC. For good production, hazelnut trees require winters that are fairly mild to facilitate pollination (which tends to peak in late winter), yet cold enough to provide adequate chilling of about 1600 hours below 7° C. While they prefer well-drained soil with good moisture, they can tolerate a wide range of soil conditions. Hazelnuts fall from the trees in September through November (depending on the variety and the weather). They are cleaned and dried before sale or processing. Dried hazelnuts store well for up to a year at room temperature.

Hazelnuts—also known as filberts or cobnuts—have been a commercial crop in the Fraser Valley since about the 1930s. By 2000, there were over 800 acres of hazelnut trees in the Fraser Valley producing over

300 tons of nuts per year, mostly around Chilliwack and Agassiz. Then eastern filbert blight arrived.

Blight takes a Bite

EFB is native to eastern North America, where its destructive effects on cultivated hazelnut varieties have so far prevented their adoption as a commercial crop. It arrived in Oregon in the 1970s, where it wrought havoc on the hazelnut industry, and made it to BC around 2003. Over the next decade, as EFB spread, BC's hazelnut farmers became increasingly discouraged and nurseries stopped growing the trees. Currently there is a quarantine preventing importation of hazelnut trees to British Columbia from anywhere that EFB is known to occur, except in tissue culture.

You might ask: "If the disease is already here, why not open the border?" But introducing more trees could open the door to more of the hundreds of strains of blight (currently only one is known to be found on the west coast), allowing it to evolve here and become even more virulent. Producers and regulators agree it is important to keep the quarantine in place to slow the spread of the disease.

Advantages of Agroforestry

Hazelnuts are generally considered hardy to Zone 5 US, though this can vary by cultivar and some varieties may survive in the Peace River area. In addition to



Clockwise from top right: Oregon State University plant breeder, Dr. Shawn Mehlenbacher, with a five-year old 'Jefferson' hazelnut tree; Eastern Filbert Blight cankers on a twig; Hazelnut tree with crown dying from EFB (credit: Thom O'Dell) Young hazelnut planting, intercropped with garlic at Poplar Grove Orchard, Agassiz, BC (credit: P. Andres)

the Lower Mainland and coastal islands of BC, older varieties are known to be hardy and produce nuts in some areas of the Okanagan, around Kamloops and Nelson. The areas of potential success for new cultivars in Canada is unknown, since each cultivar and microclimate is different, and they have not yet been widely planted here (almost all current data is from Oregon).

Hazelnuts can be planted in orchards, with intercropping, for 'silvapastures', hedgerows and windbreaks, to shade farm buildings, as hosts for truffles, and of course for the many other benefits that come from adding more kinds of trees on your farm. Intercropping with crops such as garlic, squash, and clover seed be-

tween the hazelnut trees works best during establishment—before nut production, when harvests impact the alleys between the rows, and the orchard becomes more shaded. Feeding culls to livestock, allowing them to feed from nuts left on the ground after harvest, or growing nuts purposely for feed are time-proven agroforestry strategies.

BC Hazelnut Growers Association President Peter Andres is intercropping garlic with his new planting at Poplar Grove Orchard and has plans to plant a heritage grain seed crop next. He sells much of his harvest at farmers markets to get premium prices (for his garlic and scapes too!) and he makes a hazelnut face cream for a unique value-added product.

Continued on page 28...

Selective Breeding for Superior Nuts

In 1969, Oregon State University in Corvallis began a large hazelnut breeding program, applying classic selective breeding to produce superior trees. The past 10 years have seen the release of many new hazelnut varieties selected for EFB resistance, nut quality, and pollen characteristics. Some new varieties can produce almost double the yield per acre of the old standard Barcelona hazelnut variety.

By creating new varieties with high resistance to EFB, the Oregon State University breeding program is widely credited with rescuing the hazelnut industry in Oregon, which has grown by about 3000 acres per year for three straight years. At a recent field day in early August at Oregon State University there were a couple hundred people and many young farmers. It was inspiring to see so many multi-generational farm families celebrating hazelnuts; clearly their industry is thriving.

In BC, many hazelnut farmers are certified organic, a big distinction from Oregon where they are only about 5% of the total. Canadian Hazelnuts is one of the two processors in the Fraser Valley. They're set up to handle organic nuts and make a variety of products such as roasted nuts, nut butter, oil, and protein powder.

New orchards are being planted now, so while some see hazelnuts as a dying commodity in BC, we are watching the crop being reborn. Resistant to disease, bearing bountiful crops of flavourful, nutritious nuts with endless uses, now is the time to diversify your farm with hazelnut trees! 🌱

🌱 www.naturetechnursery.com

Thom O'Dell and Haley Argen run Nature Tech Nursery in Langley, where they produce disease-resistant Hazelnut cultivars.



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Celebrating 22 Years

Pro Organics is proud to represent BC organic producers and to be celebrating our 22nd year of supporting local, organic, sustainable farming.

Today, as it was 22 years ago, our mission remains the same: Promoting the growth and integrity of organics from field to table.



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