Bayfield County UW-Extension

Press Release

FISCHBACH AWARDED $747,000 FOR HAZELNUT RESEARCH

With new funding from the USDA-Specialty Crop Multi-State Program, Jason Fischbach, the UW-Extension Food and Energy Woody Crops Specialist will begin scaling-up a hazelnut industry in the Upper Midwest, a project he and his collaborators have been working on for more than a decade. According to Fischbach, "Hazelnuts are a great economic opportunity for rural areas of WI and this grant award will help growers fully realize the opportunity".

Most residents of Ashland and Bayfield Counties have probably picked hazelnuts in the wild at one point or another, as they grow throughout the region, especially on sandy soils. But, though edible, the nuts from wild plants are generally very small. "When I joined Extension in 2006, I was asked to find new economic opportunities for farmers in our region and I thought hazelnuts had some potential given that they grow in the wild in our region", says Fischbach.

To bring the hazelnut opportunity to fruition, Fischbach helped launch the Upper Midwest Hazelnut Development Initiative in 2007. "Building a new industry from scratch with a long-lived crop is a major challenge. I'm just happy we've come as far as we have and to receive this funding is both validation of our hard work and a great opportunity for growers", says Fischbach.

The first thing Fischbach did was partner with his colleague, Lois Braun, a research scientist at the University of Minnesota and they began looking for improved varieties of hazelnuts that could work in the cold-winters of the Upper Midwest. "99% of hazelnuts grown in the U.S. are grown in the Willamette Valley of Oregon, which has a zone 8 climate", says Fischbach, "So, despite being high yielding cultivars, what they grow in Oregon won't survive here, plus we have a fungus native to our region called Eastern Filbert Blight that is fatal to the Oregon cultivars". With existing cultivars not an option, Fischbach and Braun looked to two sources to create new cultivars. The first was the hundreds of square miles of wild American hazelnut growing in Minnesota and Wisconsin. According to Fischbach, "We've screened hundreds of sites looking for high-performing individual plants and now have about 80 selections in evaluation. We also have more than 2000 offspring from wild plants growing at the Hayward State Tree Nursery in Hayward. Our hope is some of these will prove capable of supporting commercial production, but evaluation will take time and it will be a while until proven plant material will be available to growers".

The second source of plant material was the hundreds of small on-farm plantings of hybrid hazelnuts in the Upper Midwest that are offspring from crosses between American hazelnut (found wild in our region) and European hazelnut. According to Fischbach, "Early-adopter growers have been planting offspring from crosses private breeders had been making since the early 1900's. Like any open pollinated offspring, all of the plants were different and not good enough on average to make commercial production possible, which is why the plantings are still largely hobbies. But, within those plantings were some pretty amazing individual plants with high yields every year, good disease resistance, and large enough kernels".

In cooperation with the growers, Fischbach and Braun were able to propagate the best plants and evaluate them side-by-side in replicated performance trials across the Upper Midwest, including at a planting in Bayfield. "From these trial plantings we have identified a cohort of top performing plants that we think are good enough to support commercial production and this new grant will help us get the plants out to growers", says Fischbach. "The grant will also allow us to develop 2nd generation germplasm with even better performance. We'll also be able to continue our agronomic trials to develop best management practices."

Unlike in Oregon where hazelnuts are grown as trees and nuts are swept off the ground, hazelnuts in our region will likely be grown as shrubs with nuts harvested directly from the plants using over-the-top harvesting equipment as is done with Bayfield blueberries. "The new funding will enable us to purchase harvesting equipment, test it, and then optimize it for hazelnuts", explains Fischbach.

Though most U.S. consumers don't eat a lot of hazelnuts, that is changing quickly according to Fischbach, "Oregon growers have added nearly 40,000 acres in the last five years and are expanding their processing capacity as fast as they can to keep up with demand. Total US hazelnut production is around 90 million pounds. Compare that to almond production of 6 billion pounds and you can see why folks are so excited. Hazelnuts are expected to be the next almond and I'm convinced hazelnuts in Wisconsin can be at least as big an industry as cranberries".

"Once our top selections are available in sufficient numbers, my intent is to start working with prospective growers in Northern Wisconsin to make sure our region is involved", says Fischbach. Very few people buy in-shell nuts anymore so cracking and cleaning will be key for hazelnuts to get to market. To make that possible, Fischbach launched the Hazelnut Processing Accelerator in 2018 in partnership with the American Hazelnut Company, Northland College, and UW-Madison. The Accelerator includes an incubator processing facility at Northland and research and development at UW-Madison to build processing and marketing capacity to move hazelnuts into the marketplace.

Farmers with an interest in growing hazelnuts are encouraged to contact Jason Fischbach to learn more. Fischbach will be holding an informational meeting during Extension Week on October 13 from Noon-1:00PM at the Town of Eileen at the Bayfield Business Park (the former Ag Station). More information about hazelnuts can be found at www.midwesthazelnuts.org.

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