



University of Minnesota Research Needs

- Improved germplasm for consistently high yields of high quality nutritious and flavorful nuts; for disease, insect and cold resistance; and for agronomic traits.
- Micropropagation protocols for producing large numbers of improved plants economically.
- Management recommendations to maximize both productivity and environmental benefits.
- Harvest and post-harvest processing technologies specific to our germplasm and management systems.
- Market, supply-chain development, and grower outreach.

Environmental Benefits

- Conserve soil and build soil fertility.
- Sequester carbon and cycle nutrients.
- Enhance wildlife habitat.

Hazelnuts Improve Water Quality

- As long lived perennials, they virtually eliminate the need for tillage.
- Their deep roots hold soil and reduce nutrient leaching.
- Requirements for fertilizers, herbicides and other pesticides are low due to
 - ❖ efficient nutrient cycling,
 - ❖ competitiveness with weeds,
 - ❖ few pest problems.
- Herbaceous perennials in the alleys augment all these benefits.

Market Drivers

- Demand for hazelnuts is growing, driven by increasing appreciation of the health value of eating them and by their desirable flavor.
- Oil may be used for skin care.
- Husks, shells and wood by-products are marketable.
- The University is working to increase consumer awareness of **Minnesota-grown** hazelnuts.
- Greater local demand will incentivize farmers to plant them, meaning greater water quality benefits.

Putting Hazelnuts on the Landscape

Working with Growers to Increase Supply

- A small group of pioneering growers are partnering with the University to evaluate new germplasm from the breeding program, try new production approaches, and develop new equipment and markets.
- As germplasm, knowledge and confidence improve, new growers will be inspired to plant hazelnuts in environmentally sensitive areas, where their environmental benefits will do the most good.
- New growers are needed to supply the nuts required to fulfill growing demand.



Photo by Lois Braun



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