

Fact Sheet #4—NRCS Technical and Financial Assistance for Hazelnut Establishment—Wisconsin

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As a federal agency of the United States Department of Agriculture (USDA), the Natural Resources Conservation Service (NRCS) implements a range of programs providing technical and financial assistance to farmers and landowners to help implement on-the-ground projects to improve soil, water, air, and wildlife resources. The Environmental Quality Incentives Program (EQIP) provides cost-share payments for such projects. This Fact Sheet specifies how hazelnut growers can utilize NRCS and EQIP for assistance with establishing hazelnut plantings in Wisconsin.



Why Hazelnuts?

Hazelnuts are a multi-purpose crop with exciting potential for the Upper Midwest. As a woody perennial, hazelnuts prevent soil erosion, sequester carbon, and reduce nutrient losses to surface and ground water. As a mast species, hazelnuts provide catkins, browse, and high-protein nuts for a range of game and non-game species. As a shrub, hazelnuts provide important habitat for insects and non-game bird species. In addition, hazelnuts are a high-value nut with significant income potential for growers.

Understanding EQIP

The EQIP program has become very popular as the NRCS has made it easier to access and implement over the years. That said, it is still a federal program and can be confusing for landowners. The following provides an overview of EQIP and description of the terms and language used by the program. Although EQIP is a federal program, it is implemented at the State level by State and County-based staff. As such, practices that are available in some States may not be available in others. Each State has a **State Technical Committee (STC)** that provides input to the NRCS regarding the State's eligible practices, payment rates, eligible resource concerns, and application scoring criteria. Landowners work directly with NRCS **District Conservationists**, who visit a landowner's property upon request and review options for addressing resource concerns or problems. If an eligible resource concern is found, a landowner can apply for financial assistance through EQIP to implement one



Woodcock (shown here), northern bobwhite, loggerhead shrike, and a range of other game and non-game bird species thrive in the kind of brushland habitat hazelnuts can provide.

or more **conservation practices** to address the concern. Each practice has a written **practice standard** and within each practice standard there are one or more **practice scenarios** that outline very specific criteria, standards, and payment rates for implementing the practice. For hazelnut establishment, the most relevant practice standards for 2021 are **311-Alley Cropping**, **612-Tree/Shrub Establishment**, and **490-Tree/Shrub Site Preparation**.



Each conservation practice and practice scenario has a **payment rate** that is published annually. Payment is made to landowners upon completion of the practice. The payment rate is intended only to provide cost-sharing and landowners are required to cover any costs above and beyond the payment rate. Applying for financial assistance through EQIP does not guarantee funding will be received. All applications are scored and ranked within a local funding pool with funds awarded for the highest scoring application on down until available funds are spent. Applications are scored using criteria set by the **Local Working Group** to ensure projects meet local conservation concerns and priorities. Applications are typically received on a rolling basis with funding decisions made once per year. If an application is selected for funding, the applicant will enter into an EQIP contract specifying terms and conditions for the funding. Funding provided by the EQIP program is considered taxable income. For 2021, EQIP applications will be received through October, funding decisions made in January 2022, and project implementation happening in 2022.

Although EQIP supports production agriculture and environmental quality as compatible goals, EQIP is not intended for “farm-building”. In other words, EQIP won’t help you plant hazelnuts just because you want to grow hazelnuts. Instead, the hazelnut planting must fix one or more resource concerns such as soil erosion, or realize a resource opportunity such as improving wildlife habitat.

Plant Species and Harvesting Restrictions

The species of woody plants that can be cost-shared through EQIP varies based on the practice standard. For 312-Alley Cropping and 490-Tree/Shrub Site Preparation the baseline requirement for the type of woody plant that can be grown is that plants “shall be adapted to the climatic region and soil resource”. There are no requirements that a plant has to be wild-type or even native to Wisconsin. With respect to hazelnuts, that means it is acceptable to plant American hazelnut, Beaked hazelnut, and/or the various hybrids being developed by the Upper Midwest Hazelnut Development Initiative (UMHDI) and other breeding programs. For more information about available hazelnut plants for the Upper Midwest visit: www.midwesthazelnuts.org/buy-plants.html. Although European hazelnut varieties would be eligible, the UMHDI does not recommend planting them as they are not suitably hardy or disease resistant. However, in the future, there may be suitable European varieties if ongoing breeding work is successful.

The 612—Tree/Shrub Establishment practice is more restrictive in that plants must be native to Wisconsin. Wild-type American hazelnut is clearly allowable, but so are improved varieties of American hazelnuts. At this time, hybrid hazelnuts with parentage other than *Corylus americana* are not eligible for cost-sharing with 612.

Details as to whether or when nuts can be harvested from EQIP-funded plantings are specified in the EQIP contract, but generally, EQIP contracts do not restrict harvesting and sale of products from the plantings during the contract period. That said, if the planting is included in a longer-term Conservation Reserve Program (CRP), Conservation Reserve Enhancement Program (CREP), Conservation Stewardship Program (CSP), or other contract, then harvest and sale restrictions may apply.

Step-By-Step Process for Working with the NRCS and EQIP

Step 1. Are You Eligible For EQIP?

According to the NRCS website: “Any producer engaged in livestock or crop production on eligible land, or owner of eligible production land, may apply for EQIP. Eligible land includes cropland; rangeland; pasture; non-industrial private forestland; and other farm or ranch lands, as determined by the Secretary of Agriculture.” In practice, this means the land has to be in the Farm Service Agency records with an assigned Farm and Tract number. The land must be in compliance with Highly Erodible Land Conservation and Wetland Conservation provisions. Also, the applicant must have control of the land either through ownership or a lease for the duration of the EQIP contract. If there is any question whether your land is eligible, contact your nearest NRCS office.

Step 2. Get Ready

Before scheduling an appointment with your local District Conservationist it is important to do your homework. What resource concerns do you have with your property? How will hazelnuts address those concerns? Common conservation objectives that hazelnut growers have include:

- Converting annual row crops to hazelnuts to reduce soil erosion and/or to reduce nutrient losses to surface and ground water.
- Adding a woody plant component to crop fields to provide biological and economic diversity.
- Establishing rows of hazelnuts as a windbreak to protect crops and soils from the wind, or to conserve energy in buildings, or to protect livestock during the winter.
- Adding hazelnuts to the land to provide catkins and nuts for game and non-game species.
- Adding a shrub component to the landscape to provide nesting habitat for birds.
- Sequestering carbon in above and below-ground biomass to help mitigate climate change.

It is also important to have at least a rough draft of a plan formulated for your hazelnut planting. Where will they be planted? When will they be planted? How will they be planted? How will you prepare the site for planting? How will you control weeds? How will you protect them from the deer? How will you control erosion during the establishment years when the plants are small? Luckily, resources are available to help with your planning. Start with the other Fact Sheets in this Hazelnut 101 series, especially “Fact Sheet #2:

Planting and Establishment” available at www.midwesthazelnuts.org. The UMHDI and its partners operate Hazelnut Grower Networks in Wisconsin. Consider getting involved with your nearest network by contacting a network coordinator.

Be sure to check on hazelnut plant availability. It doesn't do any good to have an EQIP contract to plant hazelnuts, but no hazelnuts to plant! Wild-type American hazelnuts are typically available in large quantities from the WI DNR and/or private nurseries, but the nuts are generally too small to harvest and sell. Higher yielding open pollinated hybrid seedlings are available, but check with providers on pricing and availability. The newly developed clonal varieties being developed by the UMHDI and other breeders are only just becoming available and supplies will be limited for some time. Check out www.midwesthazelnuts.org for more information

Hazelnut Grower Networks in Wisconsin

Networks composed of hazelnut growers and resource professionals have formed in Wisconsin to help existing and aspiring growers add hazelnuts to the landscape for conservation and income. To get involved in a Network near you contact:

NW Wisconsin—UW-Extension

Contact: Jason Fischbach, jason.fischbach@wisc.edu

Driftless Region—Savanna Institute

Contact: David Bruce, david@savannainstitute.org
EQIP Contact: Erik Hagan, erik@savannainstitute.org

Central Wisconsin—UW-Madison CIAS

Contact: Regina Hirsch, rmhirsh@wisc.edu

on available plants. With a conservation goal, a planting plan, and a cost-estimate you are then ready to work with your District Conservationist.

Step 3. Work With Your District Conservationist

Your District Conservationist is located in your nearest USDA service center along with the Farm Service Agency. In areas of Wisconsin with lots of agriculture, each county may have an office. In other parts, the District Conservationist may cover multiple counties and be located in an adjoining county. Contact your Conservationist by phone or email, or better yet, stop by in person and schedule an appointment. (At the time of writing, Covid-19 restrictions were still in place, so during the pandemic it is advised to make your contact via phone or email).



The first step in working with your local District Conservationist is to review the resource concerns on your property. If an eligible resource concern is identified, the District Conservationist will then propose specific practice standards that could be implemented to address the concern. These may or may not include hazelnut plantings because the goal of the NRCS is not necessarily to help you plant hazelnuts, it is to help you address resource concerns. Once practice standards are identified then the next step is to develop a plan and application for cost-sharing through EQIP, if applicable.

District Conservationists are called on to do a lot of things and depending on the kind of agriculture practiced in their coverage area, may not have much familiarity or experience with hazelnuts or the various tree/shrub establishment or agroforestry practice standards. To help District Conservationists assist landowners and prepare EQIP applications, the NRCS relies on Technical Service Providers and other resource professionals through cooperative agreements. The Savanna Institute, a non-profit organization based in Southwest Wisconsin, helps landowners implement agroforestry practices, such as hazelnut plantings, through a cooperative agreement with the NRCS. Erik Hagan at the Savanna Institute is well versed with hazelnuts and can help with EQIP applications. See Figure 1 for contact information.

Step 4. Prepare an Application

If it is determined a conservation practice with EQIP funding can help address resource concerns, the Conservationist or service provider will help you prepare an application. This application will include a **Conservation Plan** and an “IR”, which stands for **Implementation Requirements**. (Note: the IR was formerly called the “**Job Sheet**” and that term is still commonly used). The Conservation Plan is typically prepared by the Conservationist and is used to document eligibility and compliance with Highly Erodible Land and Wetland regulations. The Implementation Requirements is essentially the project plan, and for hazelnut plantings, will include all the details on site preparation, planting, and plant maintenance (weed control, irrigation, etc.).

Step 5. Wait

Don't expect to apply for funding in February and start planting in May. It takes time to develop an application, for applications to be approved, and contracts signed. For 2021, EQIP applications will be received through October with funding decisions made in January 2022. If funded, projects could begin with the 2022 planting season. There is no guarantee that an application will be approved. It all depends on available funding and competing applications within

the local ranking pool.

Step 6. Sign the Contract and Get Started on the Planting

Once the application is approved, you'll enter into an EQIP contract that will specify when a project can start and when it must be completed. In the past, awardees were required to save receipts and submit for reimbursement. But, now, payment is made at a set rate regardless of the actual costs. Payment is not made until the practice is completed, thus, successful applicants must have a plan for covering the costs. Historically underserved farmers are eligible to receive up to 50% advance payment. Each contract will have a contract length and a maintenance period during which the practices must be maintained.

Practice Standards and Hazelnuts in Wisconsin

With input from the Wisconsin State Technical Committee (WSTC), the NRCS decides what practice standards are available in Wisconsin on an annual basis. The following practice standards are recommended for use in 2021 EQIP applications to establish hazelnuts in Wisconsin in 2022. ***The information provided about each practice and practice scenarios is intended as an overview only. Your District Conservationist and/or technical service provider will determine which practices and scenarios are most applicable to your situation as they develop a plan customized to your site and objectives.***



It is important to note that practice scenarios and payment rate are determined annually and can change based on feedback from the WSTC, Local Working Groups, and landowners. A good example of successful collaboration among the NRCS and landowners in tailoring agroforestry practice scenarios to woody crops is in Missouri where EQIP is being used to help install woody crop plantings:

http://www.centerforagroforestry.org/pubs/NRCS_AgroforestryandWoodyCrop.pdf

311-Alley Cropping

The Alley Cropping (311) conservation practice is intended to establish rows of trees and shrubs within forage and crop fields far enough apart to permit continued cropping between the rows. There are two practice scenarios for 2021. Scenario #1 provides \$372.80 per acre (\$516.18 per acre for historically underserved farmers) to establish single rows of hazelnuts (or other hardwood trees/shrubs). Row spacing depends on the landowner's crop production objectives and width of equipment used for the between-row crop production. The UMHDI recommends row spacing of at least 15 feet and in-row plant spacing of 6 feet. The payment is intended as cost-share for the plants, tree protectors, and planting costs.

612-Tree/Shrub Establishment

The Tree/Shrub Establishment Practice (612) can be used to assist with planting American hazelnuts to restore or enhance native brush/forestlands. For 2021 applications, the practice has nine practice scenarios. Each scenario has specific details designed for specific planting situations and are not provided here. Because only pure American hazelnut can be cost-shared through this practice, it is not particularly applicable, but it may be an option for landowners upon consultation with the District Conservationist.

490-Tree/Shrub Site Preparation

The Tree/Shrub Site Preparation practice (490) can be used to prepare the ground for planting with a focus on removing undesirable vegetation and preparing a friable soil to ease planting. As such, it can be used in conjunction with 612 or 311. Scenario #2 provides \$55.77/acre for mechanical preparation including mowing and tillage. Scenario #5 provides \$82.93/acre for chemical weed control using hand-application equipment such as backpack sprayers. The two scenarios can be combined for a strip-planting system where vegetation is first mowed in the planting strips to stimulate re-growth that is most susceptible to herbicides. These strips are then sprayed to kill the vegetation and then ripped and roto-tilled (depending on the soil conditions) prior to planting. The exact site preparation plan will vary based on soils and existing vegetation as developed by the District Conservationist and/or technical service provider.

484—Mulching, 342—Critical Area Planting

The District Conservationist might also recommend complimentary conservation practices depending on the specifics of the hazelnut establishment plan. The 484-Mulching practice Scenario #46 is intended for suppressing weeds and conserving moisture during the establishment phase. The practice can provide \$46.96 per acre to apply organic mulch (wood chips, leaves, chopped straw, etc.) around each plant or within each row. The 342—Critical Area Planting Scenario #1 is intended to establish perennial herbaceous vegetation after another practice is implemented and will provide \$183.70 per acre to help cover the costs of seed-bed preparation, seed, and soil amendments. With respect to hazelnuts, this could be planting the row-middles if full-field herbicide and/or tillage actions were required for the site preparation.

Conclusion

Agroforestry practices, such as alley-cropping, are a form of regenerative agriculture where soil and water quality are protected *with* agriculture instead of *from* agriculture. Hazelnuts are a cornerstone species for agroforestry practices and, thus, are a good fit for EQIP-funded conservation practices. This Fact Sheet is intended to provide landowners and hazelnut growers with the information they need to work with District Conservationists to explore the EQIP opportunity.

The **Upper Midwest Hazelnut Development Initiative** is a collaboration of the University of Wisconsin, University of Minnesota, and partners working to develop a hazelnut industry in the Upper Midwest. Correspondence about this publication can be directed to Jason Fischbach, jason.fischbach@wisc.edu.

This publication was developed with input and review from Erik Hagan and David Bruce of the Savanna Institute and Regina Hirsch of the UW-Madison Center for Integrated Agricultural Systems..



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