Hybrid hazelnuts: *wildlife cover and feed*

Hybrid Hazelnuts

Recently the Arbor Day Foundation began working with the University of Nebraska, Rutgers University and Oregon State University on creating Hybrid Hazelnuts for commercial use and wildlife habitat. Together these institutions represent a cumulative of 70 plus years of research on hazelnut plants. During those research years we have noticed what tremendous wildlife plants hazelnuts are. Their catkins are often eaten by animals in the winter for a food source, they provide tremendous cover, and the nuts are extremely high in protein and other vitamins. In addition, hazelnut plants are a hardy plant that require minimum to no maintenance once they are established, and have a wide range of environmental benefits.

Currently we have some wildlife hazelnuts available for planting. We would be interested in a formal study performed on these plants to see how wildlife interacts with hazelnut plants for both cover and as a source of food. In additional to the wildlife habitat study we believe that they could be considered for a CRP plant.

Wildlife Habit

Hazelnuts plants can provide great wildlife habitat and nutrition. The environmental benefits of hazelnuts make them attractive CRP plants, windbreaks, hedges, or riparian buffers. As a food source hazelnut plants provide soft mast from their catkins and hard mast in the fall and winter through their nuts, creating a diverse food source for multiple animals.

Wildlife that uses Hazelnut Plants for habitat and/or nutrition:

- Quail
- Ruffed Grouse
- Wild Turkey
- Pheasants
- Squirrels
- Chipmunks
- Mice
- Ground Hogs
- Deer
- Woodpeckers
- Blue Jays

The nuts produced by American hazelnut are a preferred mast by squirrels, deer, turkey, woodpeckers, pheasants and other animals. The male catkins are a food staple of ruffed grouse throughout the winter.
- Wisconsin Department of Natural Research

Environmental Benefits

Carbon Sequestration

- **Hazelnuts sequester more carbon.** The extensive root systems of hazelnuts help build and increase organic soil matter, sequestering more carbon from the atmosphere each year.

- **Hazelnuts have a much greater period of photosynthetic activity.** Because of the full leaf canopy present in hazelnuts from early spring to late fall, there is a much longer period for photosynthesis and subsequent fixation of carbon dioxide.

Soil Erosion

- **Hazelnuts reduce/prevent soil erosion.** The root system and full leaf canopy prevent soil erosion on hilly or sloped land.

- **Hazelnuts have a longer period of complete soil cover.** Hazelnuts provide complete soil cover much longer throughout the year. In addition, dormant vegetation and leaf litter prevents erosion from raindrop splash and wind throughout the winter months.

Riparian Buffer Zone

- **Hazelnuts are classified as a riparian buffer zone species.** Hazelnuts are classified by the USDA and Natural Resources Conservation Service (NRCS) as a riparian buffer zone species, acting as a natural biofilter that protects aquatic environments from excessive sedimentation, polluted surface runoff and erosion.

Nitrogen Leaching

- **Large perennial root systems are active most of the year (below frost line), allowing little nitrogen leaching**. Besides the environmental health benefits of greatly reduced nitrogen leaching, reduced nitrogen loss creates a better plant efficiency minimizing maintenance.

Drought Resistance

- **Hazelnuts use less water and are drought resistance.** Massive root systems allow perennial plants to avoid short term droughts that would adversely affect annual crops. Research in Nebraska has shown that hazelnuts can be a staple high-yielding food source.

Nutritional Comparison per 1 Ounce

Nutrient	Units	Hazelnuts	Acorn
Calories	kcal	176	142
Protein	g	4.2	2.3
Carbohydrate	g	4.7	15
Total Fat	g	17	8.8
Saturated Fat	g	1.3	1.1
Monounsaturated Fat	g	12.8	5.6
Polyunsaturated Fat	g	2.2	1.7
Fiber	g	2.7	0
Calcium	mg	31.9	15.1
Iron	mg	1.3	0.3
Magnesium	mg	45.6	23
Phosphorus	mg	81.2	28.8
Potassium	mg	190	199
Zinc	mg	0.7	0.2
Copper	mg	0.5	0.2
Manganese	mg	1.7	0.4
Thiamin	mg	0.2	0
Riboflavin	mg	0	0
Niacin	mg	0.5	0.7
Pantothenic Acid	mg		0.3
Vitamin B6	mg	0.2	0.2
Folate	mcg	31.6	32.2
Vitamin A	IU	5.6	0
Vitamin B6	mg	0.2	0.2
Vitamin B12	mg	0	0
Vitamin C	mg	1.8	0
Vitamin D	mg	0	0
Vitamin E	mg	4.2	0
Vitamin K	mg	4	0

Source: Nutrient data for this listing was provided by USDA SR-21