



**Turf and lawn grass** From a sea of prairie grass to a sea of green carpet, turf and lawn grasses—predominately Kentucky bluegrass—have transformed Minnesota's landscape. Valued for recreation, erosion control, and preventing pollutant runoff from entering Minnesota's waterways, grass cools and covers countless acres in Minnesota. Only through best management practices can turf benefits offset the inputs that can harm the environment. Turfgrass contributes \$8 billion to the state's economy in retail and wholesale sales of sod, seed, and related equipment for homeowners, as well as recreational sports uses.



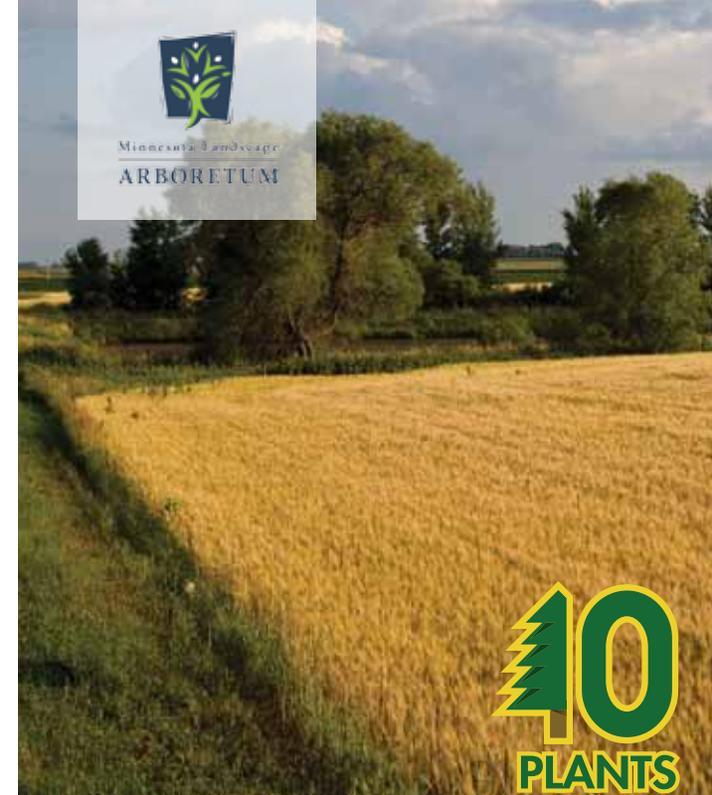
**Wheat** Wheat was the first large monocultural grain crop in Minnesota. As early as 1879, 72,000 bushels of Minnesota wheat were exported to Spain. Wheat built Minneapolis, Minnesota's industrial "Mill City," which today does more than \$200 billion of food and agricultural related business annually. Minnesota ranks third in U.S. spring wheat production, and 10th in overall wheat production.



**White pine** White pine forests once covered more than 3.5 million acres in Minnesota, but today cover less than 100,000. Prized for its strong, straight trunks, white pine built the cities of the Midwest and provided lumber for the ships of England as early as the 1600s. Today more than one million white pine seedlings are planted annually in Minnesota. On average, more than 30 white pine trees are planted for every tree harvested.



**Wild rice** A staple food of the Ojibwe for centuries, the location of wild rice determined early human settlement in Minnesota. Minnesota today produces more than half of the world's hand-harvested wild rice and is second in the nation in the production of cultivated wild rice. Native to lakes and wet areas, wild rice was named Minnesota's state grain in 1977 for its cultural and economic significance.



## 10 Plants that Changed Minnesota

Transforming how the world lives today

From alfalfa to wild rice, plants are critical in nourishing and sustaining life in Minnesota and worldwide. Join the conversation with classes and events about the 10 plants selected for their significant impact on what we eat, the landscape, the economy, our culture, history and more.

[www.arboretum.umn.edu/10plants.aspx](http://www.arboretum.umn.edu/10plants.aspx)





**Alfalfa** Only with winter hardy alfalfa could dairies be profitable in Minnesota. Wendelin Grimm, a German immigrant, selected winter survivors from his alfalfa fields and developed Grimm alfalfa in the 1860s. Today, Minnesota ranks sixth in the nation in milk cows, milk production, and total cheese and honey production. Alfalfa is a favorite of honeybees, and like all legumes, it adds nitrogen to the soil.



**Apples** Challenged in 1860 by Horace Greeley's statement that "I would not live in Minnesota because you can't grow apples there!" Peter Gideon introduced the Wealthy apple in 1868. It was followed in 1922 by the Haralson, and subsequently 26 U of M introductions, including the Honeycrisp in 1991, the Zestar!® in 1996, and SweeTango® in 2009. Honeycrisp was recognized as one of the top 25 innovations of the decade in 2005 by TIME magazine. Millions of Honeycrisp trees have been planted worldwide, and in 2006, Honeycrisp became Minnesota's state fruit.



**Purple loosestrife** Originally planted as an ornamental garden plant, purple loosestrife is the poster child of invasive plants. It has taught us how significantly a plant can transform the valued wetlands and waterways in Minnesota. Careful management with biological and chemical controls, along with education, and cooperative measures, learned from purple loosestrife should help us deal with other invasive plants in the future.



**American elm** Though ravaged by Dutch elm disease, this beautiful shade tree, native throughout the state, still graces many streets and landscapes today. Tolerant of city conditions and the robust Minnesota climate of hot summers and cold winters, the American elm is a survivor. Genetics and breeding have given new hope for Dutch elm disease-resistant selections for urban and suburban sites. Elms support more than 200 species of Lepidoptera, or butterflies and moths.



**Corn** Valued at \$7 billion annually, corn covers 7.3 million acres in Minnesota, making the state fourth in U.S. production. Yields have changed from 39 bushels/acre in 1959 to 146 bushels/acre in 2007, due to cold-hardy varieties produced especially for Minnesota. U of M introductions account for nearly 200 hybrids. In 1992, TIME magazine designated hybrid seed corn as one of the most significant events that shaped our world during the past 1,000 years. Corn has more than 3,500 uses in commercial and industrial products and manufacturing processes.



**Soybeans** Valued at \$3 billion annually, soybeans cover 7.3 million acres in Minnesota. Originally grown as forage, the seed and oil crop was developed by researchers at the U of M. Soybeans are an excellent source of protein: Each seed is 40 percent protein, compared with 25 percent for other legumes, and 12 percent for other cereal grains. Soybeans' uses range from livestock food for poultry and Minnesota's 49 million turkeys, to baby formula, adhesives, oil products and more. Minnesota is third in U.S. soybean production.