New Focus on Hops

Often referred to as the spice of beer, hops have the distinction of having nearly 100% of the U.S. grown crop originate in three states—Washington, Oregon, and Idaho. But in the 1860s and 1870s Wisconsin grew one third of the hops produced in the U.S. Since then many new varieties were developed that offer a plethora of upgrades such as providing higher yields or distinct flavors and aromas. However, those improved varieties were not bred with the Midwest in mind and in many cases are proprietary.

Over the last decade there has been a dramatic revival in beer brewing throughout the eastern U.S. Minnesota has the distinction of being on the western edge of that revival. Local craft and microbrewers are in need of new hops varieties. Beer lovers are increasingly seeking out unique brews or even trying their hand at homebrewing.

The University’s hops research program officially began in 2010 and in 2012 added breeding to the mix. The program has several goals: 1) sharing research findings with local growers and other Great Lakes region programs; 2) exploring production practices suited for Minnesota conditions; 3) discovering what existing varieties work well here and under what conditions; and 4) developing new varieties that meet the demands of the growing brewing industry in Minnesota.

More than 16 existing varieties have been tested on Research and Outreach Center sites in Waseca, Rosemount, and Grand Rapids. In total, two-thirds of an acre is being used for hops research. Of that, half is used for disease studies and the other half is solely in Waseca and used for production research and breeding. In addition, hops are being monitored in the Saint Paul Campus greenhouses where they are tested for downy mildew and disease resistance.

Roots in barley

Another key ingredient for beer making, barley, has been grown at research stations in Minnesota since 1900. Breeding focuses on developing varieties that increase yields, offer disease resistance, and are suitable for malting and brewing. The U’s Agricultural Experiment Station has developed 20 varieties; the most recent is ‘Quest’, released in 2010. In the heyday of large national brewers, two-thirds of all beer brewed in the U.S. contained barley from U of M varieties. The current breeding program includes two-row varieties, preferred by craft brewers, versus six-row types used by large scale breweries.

Know to Grow

Although a perennial plant, hop vines die back to the ground every year and start fresh with new vines in early spring after the last frost. The vines reach 25 feet in length and typically require 20-foot tall trellises for support. At harvest time, the cones are around 80% water and either need to be dried or used immediately to avoid composting.

http://z.umn.edu/hops