Hop Production to Enhance Economic Opportunities for Farmers and Brewers 2013

Dr. Mary Gardiner, OSU Entomologist and Assistant Professor
Brad R. Bergefurd, Horticulture Specialist and Extension Educator
Chelsea Smith, Research Assistant, Thomas Harker Research Assistant
Wayne Lewis Farm Manager
The Ohio State University South Centers
1864 Shyville Road, Piketon, Ohio 45661

OBJECTIVES:

To screen hop cultivars for their production performance under Southern Ohio growing conditions and to evaluate yield and marketing potential for the Ohio area.

MATERIALS and METHODS:

This trial evaluated and screened six hop cultivars for their production suitability, performance and quality attributes under southern Ohio growing conditions. Input was received from rhizomes suppliers, growers, and industry personnel regarding variety selection and standard comparisons. The Replicated trial was located in southern Ohio, at the Ohio State University South Centers field research trials in Piketon, Ohio(lat. 39.07° N, long. 83.01° W, elevation 578 ft.). Rhizomes were hand planted onto 10 inch tall raised beds covered with black landscape fabric spaced 3 feet apart in row on May 9th . Trickle irrigation was installed on top the landscape fabric. Bed spacing was 12 foot apart on center. 159 pounds of P2O5, 140 pounds of K2O and 2477 pounds of CaCO3 per acre were applied before forming beds and laying black landscape fabric. High trellis system (17 ft.) was installed early spring after the formation of the raised beds.

RESULTS and DISCUSSION:

Baler twine two per plant was dropped from the trellis, with two bines trained per string. Resulting in four bines total per plant being trained. Overall plant and cone quality was good this season. The four cultivars were harvest on August 26 (Galena), August 27 (Columbus) and September 3 (Nugget and Cascade). Following harvest the cones were placed into the oast to dry the cones down to 8 percent moisture. After the cones reach the target of 8 percent moisture the cones were bagged, vacuum sealed and placed in the freezer.

In this replicated trial total marketable dried cones pounds per acre ranged from 796 (Columbus) to 51 (Cascade).

Table 1: Cone yield responses for hop cultivars (Piketon), 2013.

Variety	Wet pounds per acre	Wet ounces per plant	Cones per plant	Dry pounds per acre	Dry ounces per plant
Columbus	4107 A	14.78 A	392 A	796 A	2.86 A
Galena	1481 B	5.33 B	162 B	378 B	1.36 B
Nugget	675 B	2.43 B	123 B	201 B	0.72 B
Cascade	246 B	0.88 B	41 B	51 B	0.18 B
LSD	**1867**	**6.72**	**167**	**413**	**1.48**