Facilitating Rural Development in the greater Great Lakes Region: Development of a regional collaborative to support sustainable hops production

Dr. Rob Sirrine
NCRCRD Webinar
January 14, 2016
Outline

• Situation
• Challenges and needs
• Great Lakes Hop Working Group
  • Objectives
  • Funding
  • Education and Outreach
  • Outcomes
  • Resources

A new brewery is opening in the U.S. every 16 hours
Two Distinct Markets

• **Alpha/Bitter**
  - Processed hops
  - Yield measured in kg. Alpha per acre
  - Typically hi-alpha varieties, increasingly aroma
  - Eg. Columbus, nugget

• **Aroma**
  - Minimal processing
  - Yield measured in lb. per acre
  - Typically aroma varieties
  - Eg. Cascade, Amarillo, Simcoe, Centennial, etc.
Getting to 20/20 – Hops
Dr. Bart Watson, Brewers Association

- 12,000 new acres?
- $180 million minimum in acreage investments?
- 25 million more pounds of hops
- Pelletizing infrastructure
- Storage (even at 25 cents/lb. it adds up)
- Growers have been expanding and investing

2013 Beer Sold in MI (bbls)

All Beer 6,257,864 bbls

All Craft Beer 452,000, 7.2%
MI Craft Beer 297,000, 4.7%
Situational Overview

- Thriving craft brewing sector
- Interest in local sourcing of raw materials
- An increase in the geographic diversity of hops production outside of the Pacific Northwest has been encouraged by craft brewers and the Brewers Association
- Increasing interest from growers
- Despite the enthusiastic growth of hops production throughout the region, there are significant challenges to hops production in the greater Great Lakes Region.
Factors that can impact hop production (growth, yield, and quality)

- Environment (temp, day length, soil texture, weather)
  - Day length drives production stages (photoperiod sensitive)
  - Latitude determines day length
  - Heat determines growth during each stage

- Production Practices
  - Cultivar
  - Soil fertility
  - Disease, pest, and weed pressure and control
  - Training and timing of training
  - Harvest and harvest timing
  - Irrigation
  - Post-harvest processing and storage

Traverse City, MI August 2, 2015
• R² = .95, p < 0.0001

Challenges and Needs

• Brewers
  • Increasing demand
  • Interest in sourcing local, high quality raw materials

• Growers
  • Regionally specific Best Management Practices
  • Cultivar trials to determine which varieties do best
  • Post-harvest quality control

• Educators
  • Duplication of efforts and resources
  • Need for collective repository of information
Great Lakes Hops Working Group Objectives

1. Establish a Great Lakes Hops Working Group to serve as a professional network for those serving producers in the N. Central and N. North America.
2. Host an organized hops working group conference that results in the development of resources for growers.
3. Develop a system of coordinated outreach through a collaborative information repository.
4. Develop a proposal for major funding from a federal agency for collaborative research to address needs that cannot be addressed with existing resources or expertise.

Great Lakes Hop Working Group Members

[Map of the Great Lakes region with marked locations]
Summary of Deliverables

• **Ongoing:** Establish a Great Lakes Hops Working Group to serve as a professional network for those serving producers in North Central and Northeastern North America

• **December 2014:** Host an organized hops working group conference with key stakeholders, that results in the development of collaborative hops related resources

• **January-April 2015:** Develop a system of coordinated outreach through a collaborative information repository

Summary of Deliverables cont.

• **May-August 2015:** Monthly conference calls/webinars with collaborators to share hops production information

• **May-August 2015:** Literature review & outline for major grant

• **September 2015:** Document impacts of NCRCRD grant and submit final report

• **October 2015:** Develop a proposal for funding from a federal agency for collaborative research to address needs that cannot be addressed with existing resources or expertise
Potential Impacts

- Increased availability of research-based information and educational programs to support sustainable hops production
- Increased communication between University and industry professionals to quickly identify and address industry needs
- Increased understanding of brewer needs (quality and quantity)
- Increased stability of supply, quality, & market security of hops
- Initiation of University and on-farm research and demonstration trials to develop best management practices
- **Rural and regional economic development**

---

GLHWG, Grand Rapids, MI. Dec. 2014

11 states + 2 Canadian provinces
11 Universities, Canadian Government, 1 Canadian non-profit, Hop Growers of America

AGENDA

- U.S. and Regional Hop Overview
- Areas of Expertise and Industry needs
- Development of process for proceeding
- Determine foci of larger multi-state grant project(s)
GLHWG 2015-2016 Priorities

- Greenhouse/propagation
- Pest/Disease management
- Postharvest quality control
- Horticulture
- Crop Management
- Business/Marketing

Grant Funding


- Lizotte, E., Sirrine, J R. 2016. Great Lakes Hop Working Group, North Central IPM, USDA-NIFA. $20,000. Pending


Education and Outreach

- Great Lakes Hop & Barley Conference (MI)
- Vermont Hop Conference
- NE Hop Alliance Conference
- Minnesota Hop Conference
- Ohio State Hop Conference
- Purdue Hop Production Workshop
- University of Wisconsin Hop Conference
- Ontario Hop Growers Association Conference

Outcomes

NCRCRD seed funding laid the ground work for the completion of the following objectives:

Objective 1. Establish a Great Lakes Hops Working Group to serve as a professional network for those serving producers in N. Central and N. Eastern North America.

Objective 2. Host an organized hops working group conference with key stakeholders, that results in the development of collaborative hops-related resources.

Objective 3. Develop a system of coordinated outreach through a collaborative information repository. (will be hosted on USAHops website)

Objective 4. Develop a proposal for major funding from a federal agency for collaborative research to address needs that cannot be addressed with existing resources or expertise.
Thanks to NCRCRD (Rosa Soliz), Erin Lizotte, and the GLHWG:

Charlie Rohwer, UMN       Brandon Carpenter, ISU
Josh Havill, UMN           Melanie Filotas, OMAFRA
Rob Sirrine, MSU          Julien Venne, CRDTAO
Erin Lizotte, MSU         Chelsea Smith, OSU
Jeanine Davis, NCSU       Heather Darby, UVM
Carl Duley, UW            Ann George, USA Hops
Lily Calderwood, UVM      Lori Hoagland, Purdue
Andre Venter, WMU         Mary Hausbeck, MSU
Evan Elford, OMAFRA       Tom Dudek, MSU
David Del Moro, John I. Haas Tim Weigle, Cornell
Brad Bergefurd, OSU       Angela Orhsinsky, UMN
Diane Cochran, ISU        Tim Rehbein, UW
Grant McCarty, UI

March 16-17, 2016
Traverse City, MI

www.hops.msu.edu
Resources

- www.hops.msu.edu
- Vermont Hops Project
- NE Hop Alliance
- OMAFRA
- Purdue
- UMN
- U Wisconsin
- USA Hops
- Brewers Association
- Iowa State
- Ohio State
- North Dakota State
- North Carolina State

Contact:

J Robert Sirrine, Ph.D.
Michigan State University Extension
sirrine@msu.edu

www.hops.msu.edu

If interested in more information please add your email to the chatbox.