

February
2017

Northeast Hops News

Northeast Hops News is brought to you each month by Steve Miller, Hops Specialist and Sarah Ficken, Hops Program Assistant, Madison County Cooperative Extension. Steve researches, writes, and finds articles that would be useful and interesting to the hops community. If you have questions regarding content or would like to contribute to this newsletter, please contact Steve Miller at sgm6@cornell.edu Sarah Ficken at sjs299@cornell.edu or Jackie Dickerson at jjd44@cornell.edu.

Inside this issue:

Hop Plants for Sale	1
2016 Conference DVD Sales	2
2017 Vermont Hops Conference	3
Intermediate Hops Workshop	4
Hop Variety Selection	5-6
Classifieds	7

Hop Plants for 2017!

As many of you know, about 6 years ago there were no hop plants being propagated in New York. At that time we had only about 15 acres of “commercial hop plantings”. We are now up around 400 acres in New York. In order for that acreage to be planted it was very important that “Clean Plants” would be propagated here. Starting with only 6 varieties, we were able to obtain clean planting stock from the National Clean Plant Network Lab in Prosser, Washington. Zerrillo’s Greenhouse in Syracuse was the first to be willing to take a risk on this business, and I have to thank George and Nick for doing so. Over the years they have provided significant financial support to the Cooperative Extension Hop Program. The relationship has been a great success and their support made it possible for us to bring our hops information program to hundreds of growers.

Since then we have had several others get into propagating hop plants for you all, Bundschuh’s, Massi’s and Alcott’s, and a new propagator, Pioneer Plant Tech, a tissue culture lab/greenhouse has started up in Utica. We at Cooperative Extension will no longer be taking orders for hop plants. I encourage anyone needing plants to work with these fine growers to obtain what you need to populate your hop farm.

The following is the contact information for each of them.

Alcott’s Gardencenter and Greenhouse

www.alcottsgardencenter.com/
(315)841-4600

Bundschuh’s Greenhouses

www.bundschuhsgreenhouses.com/
(315)986-8872

Massi’s Gardens and Lanscaping

www.massisgardensandlandscaping.com/
(607)329-7459

Pioneer Plant-Tech

<http://pioneerplant-tech.com/>
(315)351-2610

Zerrillo’s Greenhouse

<http://zerrillogardens.com/>
(315)656-8466



Cornell University
Cooperative Extension
Madison County

Building Strong and Vibrant New York Communities

www.madisoncountycce.org
www.northeasthopalliance.org
Phone (315)684-3001
Fax (315)684-9290

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2016 Cornell Hops Conference

Did you miss the 2016 Cornell Hops Conference held at Morrisville State College on Saturday, December 3? Not to worry, you can still see and hear all of the presentations, from the comfort of your own home or office.

DVDs from the 2016 Cornell Hops Conference will be available at the end of February. If you are interested in receiving a conference DVD, please fill in the information below and return it to:

Cornell Cooperative Extension of Madison County
Attn: Hops DVD
PO Box 1209
Morrisville, NY 13408.

Name _____

Mailing Address _____

Phone Number _____

E-mail _____

_____ 2012 (\$35) _____ 2013 (\$35) _____ 2014 (\$35) _____ 2015 (\$40)

_____ 2016—\$60 (non-conference attendees) \$40 (conference attendees)

Please include your check made payable to Cornell Cooperative Extension with this order form.





2017 Vermont Hop Conference

Saturday, February 25, 2017

9:00 a.m. – 4:30 p.m.

[Sheraton Burlington Hotel](#)

[870 Williston Road](#)

[South Burlington, VT 05403](#)

Registration starts at 8:15 a.m.

Conference starts promptly at 9:00 a.m.



Registration fee: \$75
Registration fee for NeHA members: \$65
Hops Live Broadcast: \$35

The Sheraton Hotel is holding a block of rooms at \$115/night until February 17, 2017. Call 1-800-325-3535 or use this [reservation link](#).

Join us for our 8th Annual Hop Conference. This year's conference will include both advanced and beginning sessions including hearing from **Jaki Brophy** of Hop Growers of America, hop crop consultant **Julien Venne**, brewer **Bobby Grim** of Foam Brewers, and **David Gent** of USDA-ARS. Advanced sessions will include presentations on characteristics of a beer brewed with local hops with **Rich Michaels** of Saranac Brewery, wild hops and downy mildew resistance with **Josh Havill** of UMN, pelletizing hops by **John I. Haas**, and research updates from **Heather Darby** and the UVM Hop team and from **Steve Miller** of Cornell University.

This year we will have a beginning hop grower session that will include information on hop cost of production by UVM staff, starting a commercial hop yard in Vermont by local hop growers, constructing a hop yard, hop irrigation, basic hop agronomy and IPM, and harvest and post-harvest processing.

There will also be vendors and exhibitors to visit and gain information from! Register today!

If you have questions, call Heather or Susan at 802-524-6501 or 1-800-639-2130 (toll-free in Vermont only).

**To request a disability-related accommodation to participate in this program, please contact Susan Brouillette at 802-524-6501 or 1-800-639-2130 or susan.brouillette@uvm.edu by February 3, 2017 so we may assist you.*

Please RSVP by February 20, 2017 by going to <https://www.regonline.com/hopconference>

Thank you to our Conference Sponsors!



UVM Extension helps individuals and communities put research-based knowledge to work. Crop insurance and other risk management strategies help to preserve and strengthen Vermont's farmers. More information is available at www.rma.usda.gov. Issued in furtherance of Cooperative Extension work, Acts of May 8 and June 30, 1914, in cooperation with the United States Department of Agriculture. University of Vermont Extension, Burlington, Vermont. University of Vermont Extension, and U.S. Department of Agriculture, cooperating, offer education and employment to everyone without regard to race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or familial status.

HELDERBERG BREWERY INCUBATOR

Intermediate Hops Workshop

A day-long intensive workshop on growing hops

Friday, February 17, 2017
10 am – 3 pm

The Carey Institute for Global Good
63 Huyck Rd., Rensselaerville, NY 12147

Speakers:

Goris Passchier – Growth Products, White Plains, NY
Chad Meigs – The Bineyard, Cazenovia, NY
Justin Riccobono – Hudson Valley Hops, Beacon, NY

Presentations

Hop-Specific Fertilization Methods
Annual Overview: A Season by Season Examination of Critical Steps
Marketing & Consultancy

Registration Required

\$30 includes lunch

Space is limited! E-mail gback@careyinstitute.org to secure your spot!

CAREY INSTITUTE
FOR GLOBAL GOOD

What should I plant? Hop Variety Selection

By Steve Miller

There is no easy answer to this question. Although there are a few variety trials planted in the northeast, they are young and I would say that we still do not have definitive information on most varieties. With apples or grapes for example we have decades of research and growers experience that tell us which varieties perform well on different soils and slopes, micro climates etc. We do not have anywhere near that detailed information on hops. I realize this makes it difficult for new growers, and even the more experienced ones, to choose what to plant. How can we narrow the field of options? What characteristics should you be considering?

First of all hops do not need cross pollination like apples and many other crops. We are producing only unpollinated female flowers. Hops have separate male and female plants (dioecious) so we plant only females in the yard. One male plant can produce enough pollen to pollinate acres of hops. Seeds are considered a detriment to the brewer and they can produce a lot of “off type” plants in the yard. Male plants should be rouged out and only used in breeding programs.

Here are a few factors to look into. What do brewers want? Hops can be categorized by type, aroma, high alpha, and a combination of those. They also offer a great mixture of flavors including piney, citrus, floral and hundreds more. For the most part at this moment, brewers have access to bittering hops at relatively low prices from out west. Since our hops are likely to be higher priced just because of lower quantity, it stands to reason that a good mix of aroma types is a good place to start. Are you looking for hops that do well as an American IPA, a Pilsner, German lager? Do they want hops best for an English ale? There are some growers in the Northeast that are producing high alpha types and they are doing well so far, but have not produced the yields typical in the PNW.

First of all hops do not need cross pollination like apples and many other crops. We are producing only unpollinated female flowers. Hops have separate male and female plants (dioecious) so we plant only females in the yard. One male plant can produce enough pollen to pollinate acres of hops. Seeds are considered a detriment to the brewer and they can produce a lot of “off type” plants in the yard. Male plants should be rouged out and only used in breeding programs.

This brings up factor two. That is agronomic capacity of the variety. How difficult is it to grow? Will it produce a competitive yield here or anywhere else? If you are following best production practices and the variety still only produces 600 pounds of dry hops acre, it is going to be difficult to be able to make a profit unless you are able to sell the hops at very high prices. This is not a good scenario to count on and right now price is a factor that brewers see as an impediment to purchase eastern hops.

What varieties are available in the trade? You may have already found out that some varieties are proprietary and although you can find the hops for sale, you will not be able to purchase stock to grow that variety. These include Citra and Ammarillo and there are more out there. Because of their success in sales, there is a trend that more and more of these proprietary varieties will be on the hop market, but unavailable to most growers. Disease and insect pest resistance is another very important character to consider. Downy mildew in particular is a disease that we see in our climate and powdery mildew will likely become an issue as well. Varieties that are highly susceptible like CTZ (Columbus, Tomahawk, Zeus) are far too risky to plant here. In 2015 mspray program were able to produce a good crop, while others found their plantings suffer from severe infections of downy mildew. The following chart is located on page 18 of the newly revised edition of the Field guide for “Integrated Pest Management in Hops”. More on pests of hops can be found there. It will be online, but for now it is on page 12 of the old version of the publication.

Variety	Usage	Disease Susceptibility		
		Powdery Mildew	Downy Mildew	Vert. Wilt
Brewer's Gold	Bittering	S	S	MR
Bullion	Bittering	S	S	R
Cascade	Aroma	R/MS	S	MR
Centennial	Bittering	MS	S	U
Chinook	Bittering	S	S	R
Columbia	Aroma	MS	MR	S
Comet	Bittering	R	S	R
Crystal	Aroma	R	S	R
East Kent Golding	Aroma	S	S	MR
Fuggle	Aroma	MR	MR	S
Galena	Bittering	S	S	R
Glacier	Aroma	S	S	U
Hall. Gold	Aroma	MS	R	S
Hall. Magnum	Bittering	S	R	MR
Hall. Mittelfruh	Aroma	MS	S	S
Hall. Tradition	Aroma	MR	R	MR
Horizon	Bittering	MS	S	MR
Late Cluster	Aroma	S	S	R
Liberty	Aroma	MS	S	U
Mt. Hood	Aroma	MS/R	S	S
Newport	Bittering	MR/R	R	U
Northern Brewer	Bittering	S	S	R
Nugget	Bittering	S/MS/R	S	S
Olympic	Bittering	S	MS	R
Perle	Aroma	S	R	MR
Saazer	Aroma	S	MS	S
Saazer 36	Aroma	S	MS	S
Spalter	Aroma	S	R	MR
Sterling	Aroma	S	MR	U
Teamaker	Aroma	MR	MR	S
Tolhurst	Aroma	S	S	U
TriplePearl	Aroma	S/R	S	U
U.S. Tettnanger	Aroma	S	MR	S
Vanguard	Aroma	S	S	U
Willamette	Aroma	S	MR	S

Maturity and harvest window timing should also be a part of your decision. Hops require specialized equipment for harvest and drying. In order to get the maximum use out of that equipment it is best to spread out the harvest season as long as possible. Just think, if I have all Cascades then I am going to have to run all of my crop through a dryer in a week's time, where if I can spread that out over 4 weeks, I can get by with a much smaller dryer. This also spreads out the risk of having bad weather during harvest and drying. Many growers in the PNW still grow some varieties that are not peak producers, simply because they need something to fill in that harvest window. Do not underestimate the importance of this to your overall profitability. The following chart gives relative seasonal maturity for many of the varieties that are currently being grown in the east. Keep in mind that you can also manipulate harvest dates by changing when you prune and train each variety. More on how to do that can be found in my article on [Crowning, Pruning, and Training, the art of growing hops](#), in the May newsletter on northeasthopalliance.org.

When purchasing stock you have either plants or rhizomes to choose from. Rhizomes are dug and sold as dormant pieces of root with buds on them. Most growers in the PNW plant 3 or more rhizomes per hill because not all will survive and they want the field to fill in with as much plant material as possible. Never let these dry out before they are planted as they will not take root. Plants come in plugs and pots of varying size with 4 inch being average. These are grown in greenhouses with cuttings taken from stock plants sometime between March and June. No matter if you choose plants or rhizomes you should always be careful to purchase as clean stock as possible. Right now, to my knowledge, there is no "certified" nursery stock available for hops. This would require constant testing for viruses of all stock materials. There is however the National Clean Plant Network nursery in Washington State. Propagators may purchase their clean stock from this USDA nursery and in turn start their stock plants from these. There are at least 4 greenhouse operations in New York that are producing hop plants in this manner. Orders for those plants are usually taken in the winter with plants available in May and June. These are listed on Page 1 of this newsletter.

Where can I find more information? Three sources have already been mentioned in this article. The Northeasthopalliance.org website has a forum for members as well as resources and links for other sites on hops. The University of Vermont has reports on their variety trials and many other resources for hops which can be found at www.uvm.edu/extension/cropsoil/hops. Michigan State also has an active hop program and more information can be found here: <http://msue.anr.msu.edu/topic/info/hops>. There is also a variety guide available through Yakima Chief: <http://yakimachief.com/>

Variety	Acession Number	Maturity
Early Cluster	65103	Early
East Kent Golding	21680	Early
Fuggle	19209	Early
Kent Golding	21680	Early
Serebrianka	21045	Early
Styrian	21049	Early
Tettnanger	21015	Early
U.S. Tettnanger	21197	Early
Centennial	21507	Early to Medium Early
Hall.Tradition	21672	Medium Early
Liberty	21457	Medium Early
Galena	21182	Medium to Medium Early
Spalter Select	21674	Medium to Medium Early
Sterling	21689	Medium to Medium Early
Mt. Hood	21455	Medium
Santiam	21664	Medium
Willamette	21041	Medium
Sorachi Ace	21702	Midseason
Cascade	56013	Medium to Medium Late
Chinook	21226	Medium to Medium Late
Hall. Magnum	21670	Medium to Medium Late
Wye Challenger	21043	Medium to Medium Late
Horizon	21373	Medium Late
Ultra	21484	Medium Late
Crystal	21490	Medium Late to Late
Nugget	21193	Medium Late to Late
Zeus	None	Midseason to Late Season
Brewer's Gold	19001	Late
Columbus	None	Late
Late Cluster	21011	Late
AlphAroma	21406	Late to Very Late
Vojvodina	21083	Very Late

Good luck .

Remember: The 2016 Cornell Integrated Hops Production Guide can be obtained through your local Cornell Cooperative Extension office or from the Cornell Store at Cornell University.

An updated 2017 Cornell Integrated Hops Production Guide will be available in early Spring.

To order from the Cornell Store, call (844) 688-7620 or order online at <http://store.cornell.edu/c-875-pmep-guidelines.aspx>.



Classifieds:

Are you a grower looking to sell a piece of hops equipment? Do you provide harvesting or processing services to other growers? Are you looking for equipment or services? Is there a unique opportunity on your farm that you would like to share? If so, send in your information to Jackie (jjd44@cornell.edu) for inclusion in next month's newsletter.

For Hire

Looking for a reliable and hard working employee in the hop/craft brewing industry? Look no further! I am an able-bodied, hard working researcher, field technician, and learner. Hoping to gain experience and education in hop growing on a small to large scale beyond my intermediate knowledge and experience with hops and craft brewing. Field setup and maintenance, fieldwork, equipment setup and operation, hop drying, pelletizing and health and safety are all aspects of the business I am looking to know more about! Available for work in New York State, preferably near Ithaca, NY or 25+ miles surrounding. Available in Spring 2017 or sooner. Contact me via email at MeredithAC@gmail.com.

For Sale

Hop picker for sale. Prototype hop picker for sale at Lagasse Works, Lyons, New York. Call and ask for Dan for details at 315-946-9202.

Hop dryer system made up of a 1.2 million btu/hr propane heater, 100 boxes and 2 modified reefers. The dryer can process 8000 lb of hops per load in six hours and has been in service for 4 years. We also have a **complete chemical lab** capable of testing hop properties including alpha, beta and his. The equipment was bought new. All of the equipment is located in Old Mission, Michigan. My name is Ulf Nordin in Swampscott MA. If any interest please email us at ulfkdn@gmail.com or call/message at 781-589-3301.

2 Acre Hop Yard in its second year for sale in Erie County. Varieties include Cascade, Centennial, Crystal, Columbus, Zeus, and Hallentauer. Sandy Loam soils, pond for irrigation, professionally installed trellis, space for 8 additional acres. Additional land available. Contact shepherdhillhops@yahoo.com

A Black Locust Connection, located in Colrain, Massachusetts, has **black locust hop poles** for sale, \$55.00 per pole. For more information contact Blue Sky, at info@ablacklocustconnection.com or 413-624-3645.

Larch Hops Poles for Sale: 130 poles 24 ft. long to a 5 inch top diameter. Please call for pricing and transportation arrangements. Poles are located on a log landing 1 mile north of the exit 35 Rte. 86/17@ Howard, Steuben County East of Hornell West of Bath. Please contact Greg Fuerst @ 607-382-2062 Gregfuerst@yahoo.com

Hop Plants

Zerrillo's Greenhouses has hops plants available for spring planting. Call (315)656-8466.

Bundschuh's Greenhouses has hop plants available for Spring planting.
Call (315)986-8872 and ask for Ellen

Massi's Greenhouse has hop plants available for Spring planting. Call (607)329-7459

Alcott's Gardencenter and Greenhouse has hops plants available for spring planting. Call (315) 841-4600

Upcoming Events

February 2-3, 2017

Craft Malsters Guild HACCP and PCQI Training for Malsters

Hartwick College in Oneonta, NY

Join Dr. Robert Maddock of North Dakota State University for this 2 day short course intended to provide HACCP and food safety training to malsters that are interested in developing food safety plans. For more information, please visit the [Craft Malsters Guild's Website](#)

February 4-5, 2017

2017 Farmer Brewer Winter Weekend

Hartwick College in Oneonta, NY

The Farmer Brewer Weekend is an immersive two day symposium for established and aspiring farmers, malsters and brewers to come together to learn from industry experts, as well as each other. Program and registration info can be found at www.hartwick.edu/farmerbrewer

February 17, 2017

Intermediate Hops Workshop

Carey Institute for Global Good

The Carey Institute for Global Good is hosting an Intermediate Hops Workshop from 10:00 am to 3:00 pm. Registration cost is \$30.00 and includes lunch. Please contact Greg Back at gback@careyinstitute.org or at 518-797-5100 to reserve your spot.

February 25, 2017

2017 8th Annual Hops Conference

Sheraton Burlington Hotel, Burlington, VT

The University of Vermont is hosting its 8th Annual Hops Conference at the Sheraton Burlington Hotel, Burlington, VT from 9:00 am to 4:00 pm. More information can be found at www.uvm.edu/extension/cropsoil.

Renew your NeHA Membership today!

Membership is \$40 per farm

Visit www.northeasthopalliance.org

for more information or to download our membership form

Cornell Cooperative Extension

Madison County, New York

100 Eaton Street

Morrisville, NY 13408

(315)684-3001 ext 127

Steve Miller, NYS Hops Educator — Newsletter Editor

Sarah Ficken, Hops Program Assistant — Newsletter Production and Design

Jackie Dickerson, Hops Program Assistant—Newsletter Production and Design

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