HOPS IN VIRGINIA

Laura Siegle
Amelia County
Agriculture Extension Agent
HOPS PRODUCTION BASICS

- “Humulus lupulus”
WHAT'S A HOP?
HOW DO HOPS GROW?

- Can grow up to 12” per day
- Climb twine
- Trellis height: ~15 feet in VA, up to 25’ in Pacific Northwest
- Yield is somewhat limited by trellis height.

- Dioecious: only females are used for production
- Perennial below ground (produces rhizomes); annual top growth
- Hops live for 10-25 years
DAY LENGTH AND CLIMATE NEEDS

Long summer days up to flowering (~15 hours light in summer), hot summers, cold winters

- Yields are best between 35-55\textsuperscript{th} latitudes

- Dormant period: requires winter temps <40 for 1-2 months
DO HOPS WORK IN VA?

- They’ve been around for centuries in VA
  ...but there are reasons production has shifted to the Pacific NW
SITE PREP

- Full Sun
- Well-Drained Soil
- Good Air Flow
- pH 6-6.5
- Soil test with VT lab:
  - High P and K needs
  - N: can be ~150 lbs/acre
  - “75” is crop code for hops
- My 2-cents: Amend early!
- Irrigation-a must!
PLANTING

- Rhizomes-2-3 per hill
- Cuttings
- Field-grade plants

- Space 3-7 feet apart
- Fall or spring?
VARIETY SELECTION

- Cascade
- Columbus (Zeus)
- Galena
- Chinook
- Nugget
PRE-HARVEST CHORES

- Planting
- Trimming roots/rhizomes
- Pruning shoots-save for more mature plants
- Training bines up twine-clockwise, 3 shoots per string
- Stripping lower leaves for disease control
- Disease monitoring
- Irrigation
- Weed control
Spraying method for small growers is challenge #1!

Air blast sprayer-starts ~$3000, can buy for small tractor OR small vehicle/ATV with no PTO
THINGS THAT KEEP VA GROWERS UP AT NIGHT

- Downy Mildew
- Powdery Mildew
- Japanese Beetles
- Spider Mites
- Marketing
HARVESTING

- **Pick by hand**
  - 1 hour to pick ~1 lb
  - 1 lb worth ~$15/$16 currently (wet)
  (For comparison, 1 lb dried hops sells for ~$10-40, varies greatly)
  - 1 plant makes 1-2 lbs by the 3rd year
  - VA Yields are far less than elsewhere-1/3 or so
    (heat+light+disease+management learning curve)

- **Mechanical harvest**-Old Dominion coop and some others now
  have harvester available for sharing-machine strips cones from
  the bines (see example here: [http://bineimplement.com/3060-harvester.html](http://bineimplement.com/3060-harvester.html))

- **Market immediately OR dry and/or pelletize** (several VA facilities
  are ready to pelletize in 2015)
MARKETING OPTIONS FOR HOPS

- Craft brewers
- Home brewers
- Herbal Products (tea, horse laminitis)
- Restaurants (shoots, leaves)
- Farm breweries
- Rhizomes and cuttings
- Agritourism-picking parties

- Sell wet, dried, or pelletized
GROWER GROUPS IN THE STATE

- Old Dominion Hops Cooperative-They are a very proactive group who seeks to help one another, promote the crop, and provide educational opportunities. Their website has a grower map. [http://www.olddominionhops.com/](http://www.olddominionhops.com/)

- Local brew clubs and grower groups

- Hardywood Project
OLD DOMINION HOPS COOP MEMBERS
THINGS WE HAVE LEARNED

- Industry is new but growing rapidly
- Matching yields and prices for hops from major hops-producing states is a challenge, BUT, VA growers have unique opportunities:
  - Wet hops offer different brewing options
  - Capture local premium/local value system
  - Organics? Not seeming important currently-organic beer market not huge
  - Dried/pelletized hops: feasible? Still experimenting
  - Agritourism-hop picking events
  - Hop shoots served in local restaurants
- Hops in VA are getting a lot of press
- Hop growing crowd is a bit different-some just do it for the satisfaction of contributing in a small way; some are striving to become a legitimate, profitable farm operation
“I’m looking for some income after I retire”
“Do you use email?” “No.”
“Who will buy my hops if I sell them?”
“My yard is next to the woods in the shade.”
“I’m looking for an easy crop to try.”
FOR NOW, hops are a “market your own crop” crop. Could change.

Hops are labor-intensive

Like all aspects of farming, hops are not a get-rich-quick crop

Labor is a problem-for now, growers use agritourism, extended family, people off the street.....
  ▪ Go small for hand labor, or go up to a few acres to justify equipment
  ▪ Existence of some shareable harvest and processing equipment might be a gamechanger for labor requirements for nearby growers

Hops might not be impressive in Year 1-income also delayed

Trellis may take several years to pay off

Start small, consider market first.

Growers: Free samples and/or brewer visits make a world of difference

Compete, but build partnerships-network with other growers!
**HOPS IN THE NEWS**

- **The Growth of Virginia Hops:** [http://www.richmond.com/food-drink/article_03231c58-1e57-11e4-b3c7-001a4bcf6878.html](http://www.richmond.com/food-drink/article_03231c58-1e57-11e4-b3c7-001a4bcf6878.html)
- **Virginia Now Harvesting Hops:** [http://www.timesdispatch.com/entertainment-life/columnists-blogs/lee-graves/the-beer-guy-virginia-now-harvesting-hops/article_6afa92c4-aa31-5f55-9b02-0dc047d9e8f0.html](http://www.timesdispatch.com/entertainment-life/columnists-blogs/lee-graves/the-beer-guy-virginia-now-harvesting-hops/article_6afa92c4-aa31-5f55-9b02-0dc047d9e8f0.html)
- **Collection of new articles highlighting the crop and members of the Old Dominion Co-op:** [http://www.olddominionhops.com/home/in-the-news](http://www.olddominionhops.com/home/in-the-news)
- **From Grain to Growler Documentary:** Focuses on the growth of breweries in VA, but also highlights the supporting industries including VA hops and new interest in malt barley. [http://fromgraintogrowler.com/](http://fromgraintogrowler.com/)
- **Richmond Times-Dispatch article:** [http://www.timesdispatch.com/agriculture-experts-say-va-has-potential-for-hops-market/article_4aa4ce9d-e5f2-527c-9b91-e6c10ce5bb60.html](http://www.timesdispatch.com/agriculture-experts-say-va-has-potential-for-hops-market/article_4aa4ce9d-e5f2-527c-9b91-e6c10ce5bb60.html)
- **Farm Bureau article:** [https://vafarmbureau.org/NewsVideo/NewsHeadlines/tabid/347/articleType/ArticleView/articleId/1679/More_growth_on_tap_for_Virginias_craft_beer_industry.aspx](https://vafarmbureau.org/NewsVideo/NewsHeadlines/tabid/347/articleType/ArticleView/articleId/1679/More_growth_on_tap_for_Virginias_craft_beer_industry.aspx)
QUESTIONS?