

STATUS UPDATE: HOPS IN VA



HOPS PRODUCTION IN THE US

- Washington: 32,205 acres
- Oregon: 6,807
- Idaho: 4,975

- Virginia: 30 acres?

- United States:
 - 2014 Harvested: 38,011
 - 2015 Strung: 43,987

Source: USDA June 2015 report



SURVEY INTRO AND METHODOLOGY

- Survey was first developed in 2014 by VT faculty and reviewed by industry members for input
- Voluntary and anonymous-contact info not collected
- Survey was distributed as widely as possible: posted it to ODHC website and Facebook, shared it over ODHC email list, tasked county agents with sharing with their growers, sent to email list of every grower we've encountered during workshops/emails/phone calls, etc
- Number of responses, accuracy of responses, and proper distribution affect the reliability of this info! However, this survey provides us with baseline info to aid our interactions with stakeholders

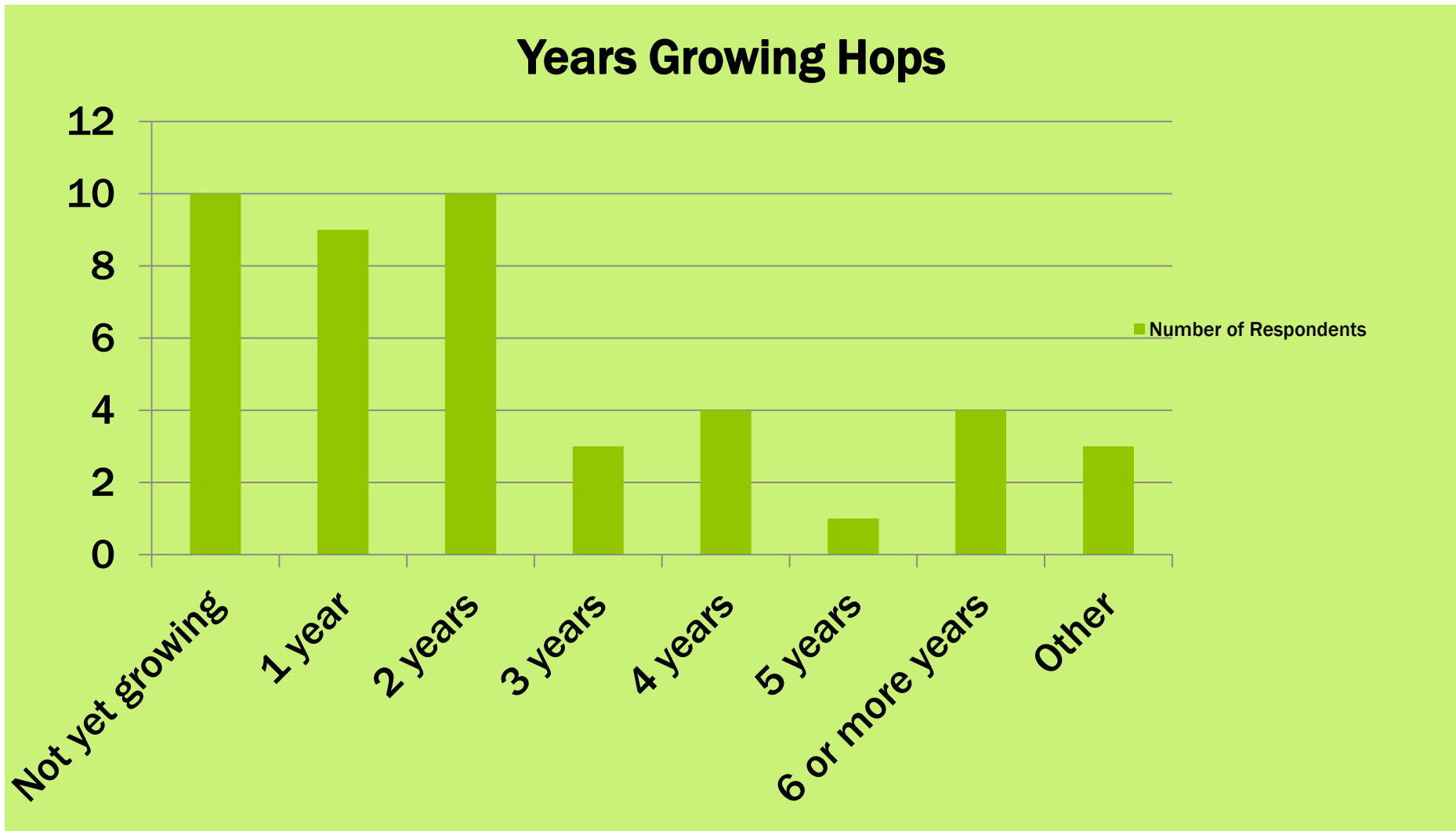
2015 VA GROWER SURVEY

- More growers taking survey = more accurate VA stats in the future
- Survey is voluntary-only as accurate as the responses we get!
- 2014: 43 respondents
- 2015: 78 respondents

ASSESSING INDUSTRY SCOPE IN VA

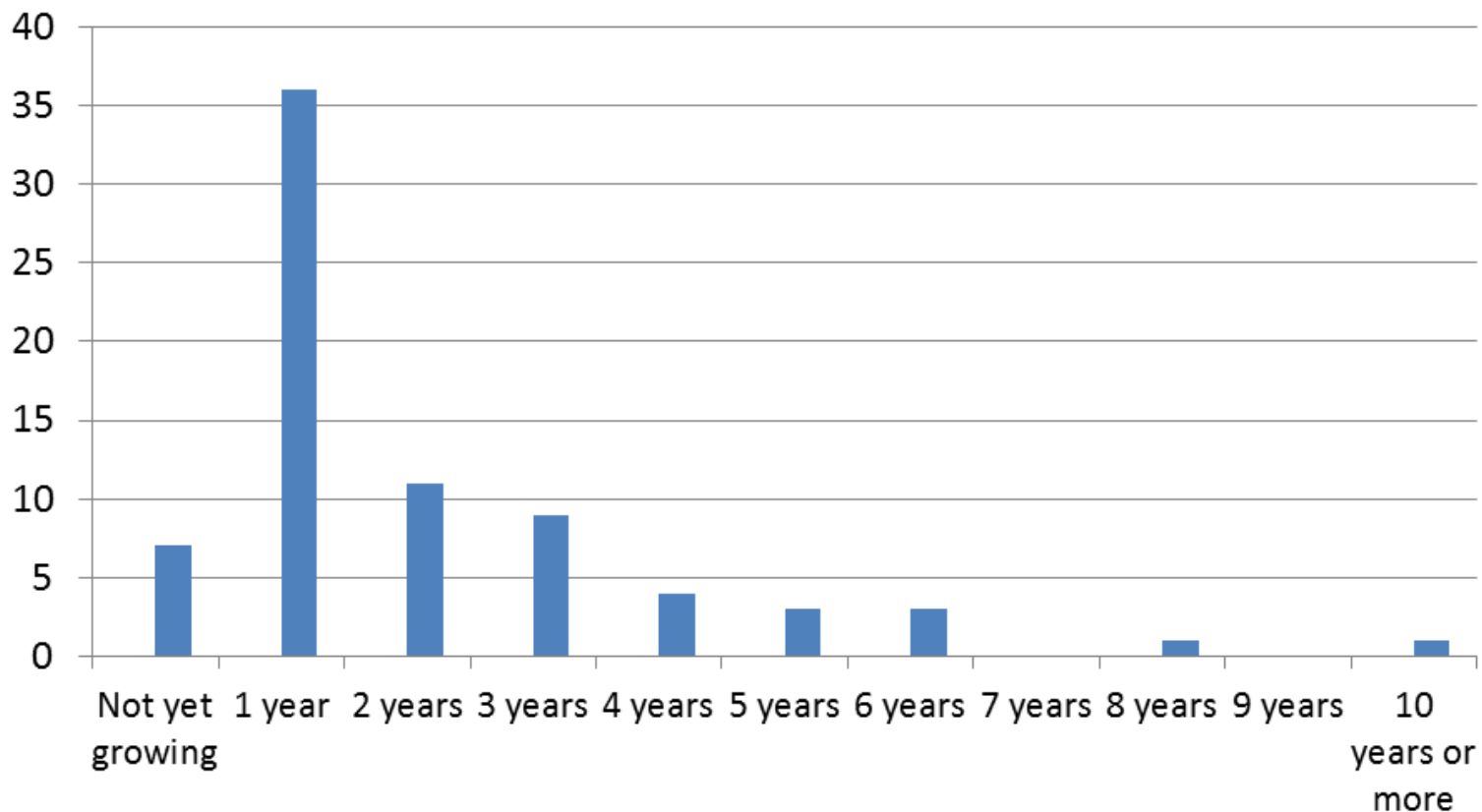
Grower Classification (could choose more than one)	2014	2015
I am growing hops commercially/I intend to sell my hops	48%	52%
I am currently growing hops for my personal use/for non-commercial purposes	24%	33%
I am not yet growing hops, but planning on it	9%	9%
Other	8%	8%

2014 MATURITY OF VA HOP YARDS



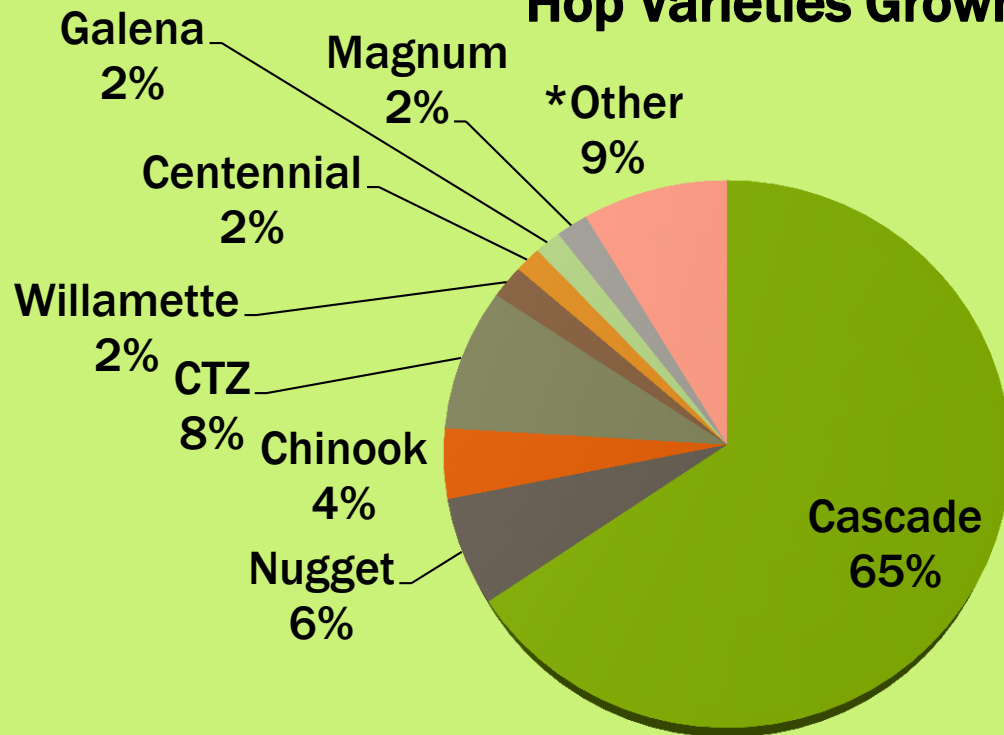
2015 MATURITY OF VA HOP YARDS

Respondents' Years of Hop-Growing Experience



2014 HOP VARIETIES GROWN IN VA

Hop Varieties Grown in Virginia

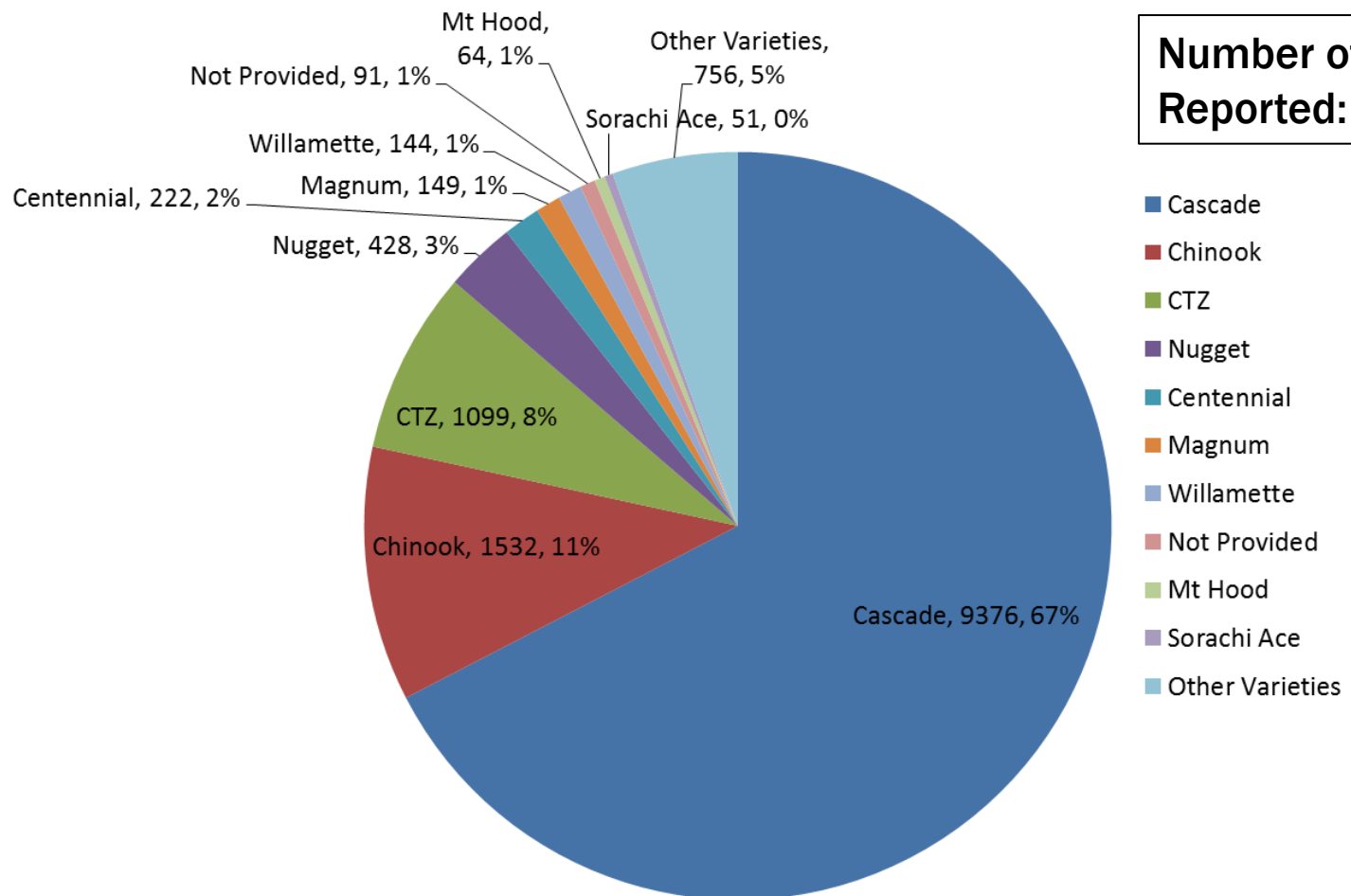


Total number of
plants reported:
13,317

**Other: Seventeen other varieties were grown in small numbers, often by only one survey respondent. To protect privacy of yield data for these individuals, any variety with fewer than 50 plants in the state OR any variety that was grown by one respondent was lumped into one total in this "other" category. This category also includes data from growers who reported plants but did not specify varieties or data by variety.*

2015 HOP VARIETIES GROWN IN VA

Reported Hop Varieties Grown in Virginia in 2015



“OTHER”

*Other: some varieties were grown in small numbers, often by only one survey respondent. To protect privacy of yield data for these individuals, any variety with fewer than 50 plants in the state OR any variety that was grown by 1-2 respondents was lumped into one total in this "other" category.

Cascade
Chinook
CTZ
Nugget
Crystal
Centennial
Magnum
Willamette
Perle
Heirloom
Mt Hood
Sorachi Ace
Galena

Santiam
Tahoma
Brewer's Gold
Golding
Tettnanger
Newport
Liberty
Hallertau
Sterling
Cashmere
Columbia
Yeoman
Kent Golding
Teamaker

2014 YIELD

Variety	Pounds Harvested (Wet)
Cascade	5667
Chinook	210
CTZ	187
Nugget	129
Willamette	10
Centennial	4
Galena	0
Magnum	0
*Other	1902
**Total Yield	8109 Pounds (Wet)

2015 YIELD

Variety	# Crowns	Wet	Dried
Cascade	9376	4057	83
Chinook	1532	309	18.75
CTZ	1099	181.1	22.7
Nugget	428	36.5	2.5
Centennial	222	8.5	2
Magnum	149	100.2	0.1
Willamette	144	0	2
Not Provided	91	28.5	4
Mt Hood	64	2.5	0
Sorachi Ace	51	0.1	0
Other Varieties	756	80.05	6.3

Total: 4803 wet lbs + 141 dried lbs (=~563 wet lbs)

SOME COMPARISONS

Variety	2014 Crowns	2015 Crowns	2014 Wet Pounds	2015 Wet Pounds
Cascade	8656	9376	5667	4057
Chinook	532	1532	210	309
CTZ	1065	1099	187	181.1
Nugget	799	428	129	36.5
Centennial	266	222	4	8.5
Magnum	266	149	0	100.2
Willamette	266	144	10	0
Not Provided	-	91	-	28.5
Mt Hood	-	64	-	2.5
Sorachi Ace	-	51	-	0.1
Other Varieties	1198	756	1902	80.05
Totals	13371	13912	8109	5366*

*2015 wet lbs=wet lbs harvested plus dried hops converted to "wet" basis (see previous 2015 yield slide). Used 1:4 wet hops : dried hops weight ratio

It is possible yields in both years are skewed by the fact that some growers reported crowns, but did not provide yield.

WHY DIDN'T WE REPORT HOP ACRES?

- Row/plant/trellis spacing not uniform
- Accuracy problems associated with guessing fractions of acres. Most people have a better handle on the number of plants they have than the number of acres they have
- We know that acreages are small, but growers are varied and numerous and we want data to represent that.
- Not all growers may have filled out our survey-survey might underestimate acreage data
- *If we had to guesstimate using hearsay and info gathered around the industry....30 acres?*

HOW ARE PEOPLE SELLING THEIR HOPS?

2014:

- **64% of respondents sold wet hops.**
- **11% of respondents sold dried hops.**
- **10% of respondents sold dried and pelletized hops.**

2015:

- **87% of respondents sold wet hops.**
- **47% of respondents sold dried hops.**
- **17% of respondents sold dried and pelletized hops.**

(Participants could select multiple answers)

2014 AND 2015: FINDING BUYERS

- If you are a commercial grower, were you able to sell all of your 2015 crop?

Response	2015	% of Respondents
Yes	20	38%
No	21	40%
NA/I am not commercial	11	21%

*Note: only 52 of the respondents chose to answer this question

Commentary given:

- Lack of interest by local brewers and lack of yield at this point
- Not all Brewers want wet, still in the process of selling dried and pellets
- Browning cones
- Selling later as dried hop cones
- No interest, yet
- Prospective period
- Lack of knowledge about available markets.
- Massive crop failure from previous year
- Not enough yield/gave away all that we had
- Needed to process after harvest, but didn't have equipment

GAUGING HOPYARD EXPANSIONS

Respondents reported the following changes and anticipated changes to their business size:

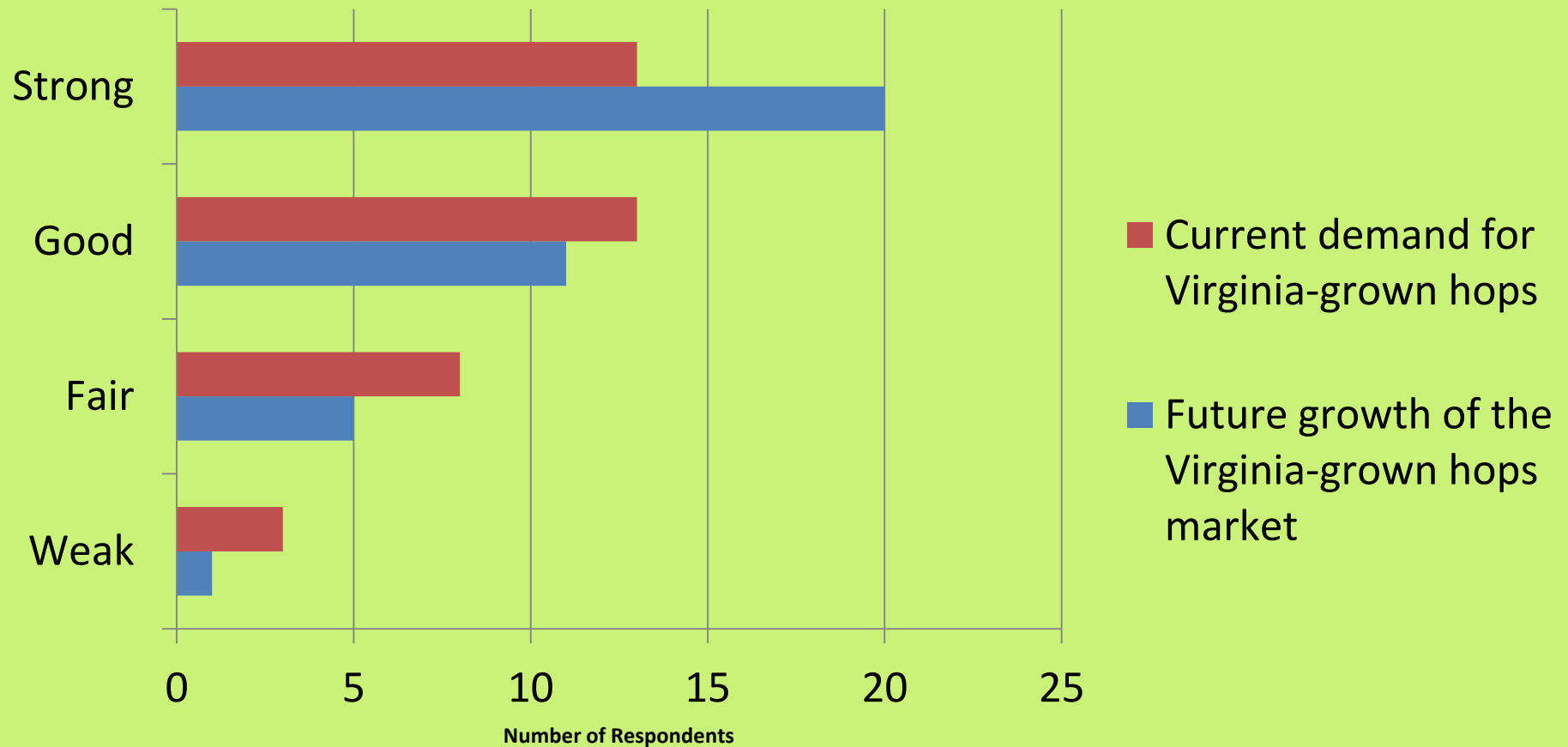
- 2014: 5,020 crowns grown (however, this is much lower than reported crowns in our 2014 survey)
- 2015: 9,945 (9,945 was the response to this question as it was posed, although 13,912 actual plants were reported in an earlier yield question)
- 2016: 17,912 plants projected by this same set of respondents—in other words, they expect to collectively add ~8,000 plants to the state next year.

HOW ARE YOU MARKETING YOUR HOPS?

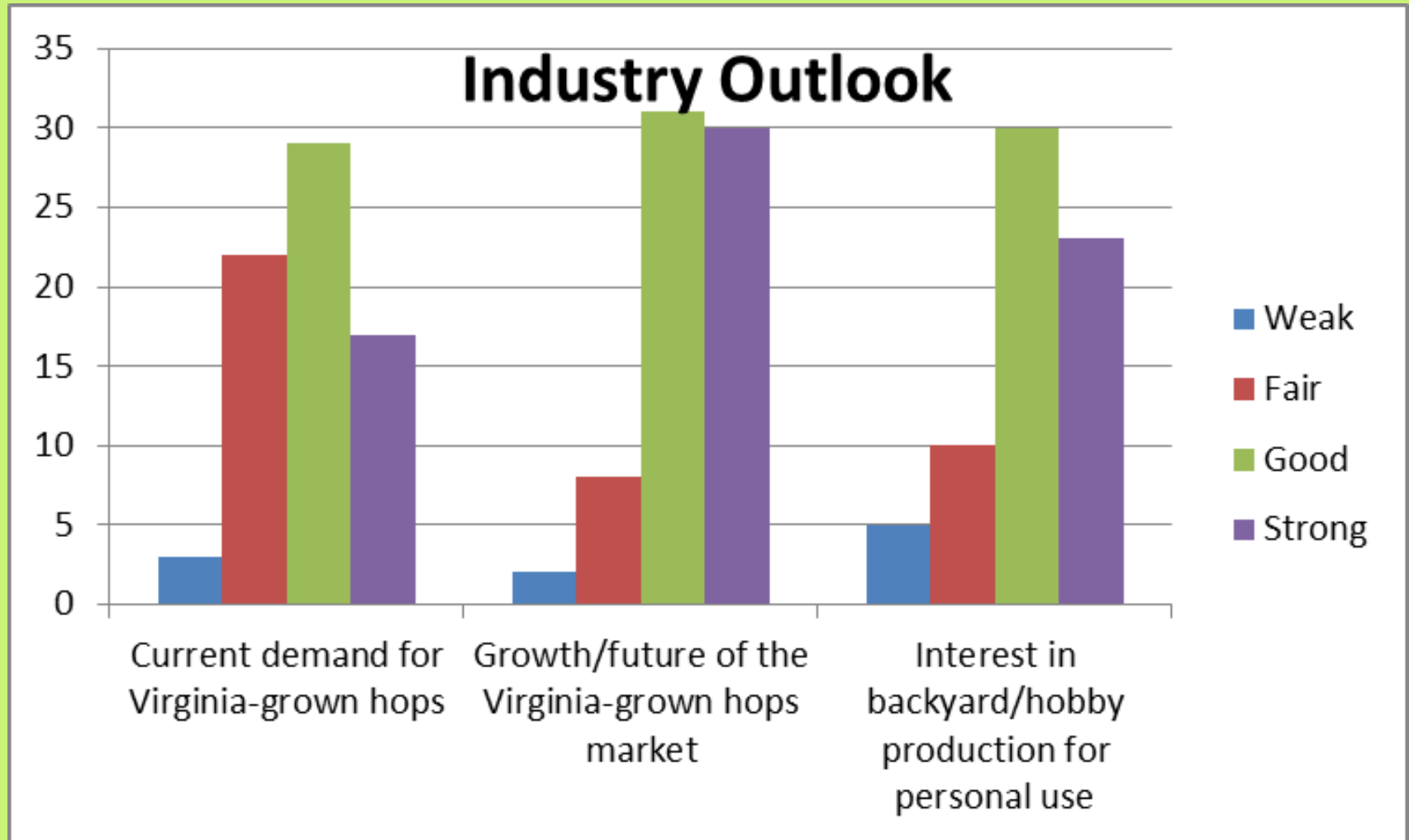
- Personal meetings
- Yard tours
- Phone calls
- Emails
- Facebook
- Webpages
- Brewer approached grower first
- Volunteering with brewery
- Long-standing relationships
- Hops smash
- Gave out hop samples first
- Word of mouth
- Online sales
- Sales to home brewers
- Sales for non-traditional uses (herbal packs, etc)

2014: WHAT'S YOUR OUTLOOK ON THE MARKET?

Industry Outlook Ratings



2015: MARKET OUTLOOK



2015: WHAT CHALLENGES ARE YOU FACING?

- Marketing
- Time
- Lack of knowledge/education/critical resources
- Insects/Japanese Beetles
- Weeds
- Labor
- Trellis, irrigation, infrastructure
- Disease
- Fertilizer
- Cost
- Organic production
- Harvest
- Processing
- Land/space
- Juggling hops and day job or long-distance farm

- “It’s farming.”

2015: SOME SURVEY COMMENTS

- There is genuinely good demand and interest in the crop.
- The experience is enjoyable, if labor-intensive (especially first year). We were not sure how and where to market at first, and without a market price to work with, we didn't know what to charge.
- The hop testing lab at VT is a great service.
- Tried five different strains of Hops, Cascade grew the best.
- Grew well, produced well, over watered early, not enough water later.
- I'm worried that the fresh hop brew is a fad, in which case we wouldn't have a market for our harvest.
- I think Boron was a huge issue for me and I believe it may be a broader issue, based on anecdotal evidence. In talking with some others, they have largely dodged the deficiency report because of the risk of getting application rates wrong. I wonder if this contributes to less vigor on a broad scale.
- I believe the industry will continue to expand as the number of breweries continues to grow. However, I believe that the current price for wet hops will not hold. This is why I am considering entering the processing side of the business.

2015: SOME SURVEY COMMENTS

- Local growers and the Loudoun County Departments of Extension and Economic Development have been very helpful in offering information and advice.
- Great option for home brewers
- I have really enjoyed meeting people involved in hops. All are friendly and readily share information. I firmly believe that there is an excellent market potential in Virginia as well as elsewhere for hops. It seems that the local breweries are increasing just like the wine industry in VA.
- I think every hop grower needs to do a wet hop smash a couple weekends in a row with a local brewery. So much fun.

2015: SOME SURVEY COMMENTS

- The Old Dominion Hops Cooperative and Virginia Tech have both played a key role in my first year as a commercial grower. Their help and expertise are invaluable to me and many others.
- I have found this to be quite labor-intensive thus far, especially while working a full-time job. But I remain hopeful that by continuing my education on hops farming through the coop and other resources, and by making more market and harvesting contacts, I can reduce my labor and increase quality and productivity.
- Hopefully we can soon show that VA hops is a superior product than buying from PAC NW, so that we can raise our prices and try to start making some money.
- Fight Hops downy mildew ASAP. Do not, under any circumstance try and wait it out. It will kill your crop and yields. Don't try and grow a large trial of a hop variety, maybe 20-40 plants.
- One benefit of growing a bunch of varieties is that harvesting can happen over several days, which means we can use fewer people to hand-pick. We will need to look to mechanical harvesting methods in a few years.

2015: SUCCESSES, COMMENTS, ADVICE

- I hear people want to continue to use local hops. Some places care way more about it than others. Some local breweries of significant size don't even make a harvest ale. I struggle with expanding significantly before I am able to show quality product and have a way of getting rid of the hops for people to use.
- I'd like to learn more about the drying process and market and best practices for selling small quantities to home brewers.
- Could be some demand for hops in herbal products. We would benefit from discussions with other growers about equipment sharing and pricing of dried Virginia hops.

WHAT ARE BREWERS LOOKING FOR?



COMMENTS FROM BREWERS

- “Availability, variety, type (pelletized), and price are all important to our business. Increased availability and variety, dried and pelletized hops, and lower prices would definitely allow us to purchase locally.”
- “Better prices and availability of pellets would increase my interest in local hops.”
- “Quality control and analytics needed”
- “Education. Need to educate your target clients.”

CONCLUSION

- We aimed to make the survey data as complete as possible, but take it with a grain of salt-- understand the factors that can play a role in the reliability and accuracy of voluntary surveys like this one.
- By the time you see this, we will likely have even more growers on board or more making expansion plans. 2016 results should be helpful for gaining an even more accurate view
- Help us find contacts for growers who may not be in ODHC or in our email lists!
- Be on lookout for 2016 survey in August/September!

NEW GROWER QUESTION: “IS THERE DEMAND FOR VA HOPS?”



WHERE DO WE GO FROM HERE?

- Continue networking and collaboration
- Offer a high-quality product and a good reputation
- Find, build, & maintain your market
- Processing: more to be learned in 2015/2016



QUESTIONS?

