2012

Hopping Around: Investigating Home Brewers and Microbreweries

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Introduction

According to *das Reinheitsgebot*—the German/Bavarian Purity Law—only hops, barley, and water are permitted in the production of beer. *Das Reinheitsgebot*, which was established in 1516, was eventually updated in 1987 to permit the use of other ingredients; however, the explicit marking of "*Reinheitsgebot*" on many Bavarian beers display the reverence of this purity principle. Of the three ingredients, hops seem to be the most entangled with notions of regional superiority. Hops are usually cultivated around the 48th parallel north and there are four major hop growing countries, each of which possesses distinct hop flavors—the United States of America (USA), the United Kingdom (UK), the Czech Republic, and Germany. In the US, hops possess "pungent" and "aggressive" citrus flavors, which is quite apparent in Indian Pale Ales (IPA's); whereas, UK hop flavors are more floral. The Czech Republic is known for aromatic hop varieties, which are often used in pilsner-style beers. According to the German Beer Institute, which is a website aimed at informing the general public about German beer as opposed to a formal institution, German hop varieties are able to combine the best attributes of the other hop varieties, thus creating hop varieties low in bitterness and high in aroma known as "noble hops". The term "noble" seems to exude superiority and distinction and I am interested in investigating what influences US brewers hop preferences.

Research Question

What influences microbreweries and home brewers when selecting a hop variety for their brews?

Hypotheses

1. The majority of home brewers will be conscience of the hop variety they use in their brews.
2. Microbreweries are more likely to use "noble hops" in order to legitimate their brews.

Methodology

Selection of Informants

This research sought to discuss hop preferences amongst both home brewers and microbreweries. My sample selection was not random; therefore, the results cannot be confidently applied to a larger population, like all brewers in the USA or in New York City. Informants were primarily selected based on responses to an advertisement on my own social networking page, i.e. Facebook, and from friends and classmates who tapped into their own social circles (See Figure 1).

Figure1: My personal advertisement for informants.

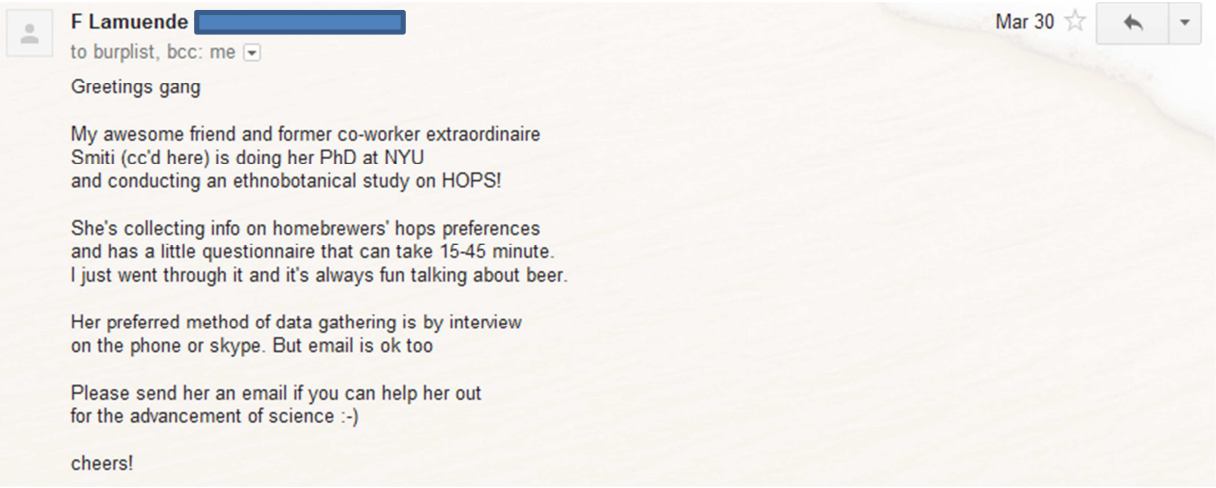


Figure 2: A friend's advertisement to his network of brewers.

Initially, solely New York City home brewers and microbreweries were sought; however, home brewers from throughout the nation and the world became available, thus included. Furthermore, while some home brewers resided in New York City, they were originally from other parts of the USA or the world so capturing a "New York City" perspective seemed fundamentally flawed at this stage of research. The "New York City" perspective probably came through amongst the microbreweries, as they all brewed in various parts of the city. Ultimately, 11 home brewers and 3 microbreweries were interviewed.

Data Collection

Interviews were based on a questionnaire for home brewers and microbreweries (See Appendix) and conducted through in-person, through Skype, over the phone, or by e-mail. All informants were informed about the purpose of this study, i.e. completed as part of a requirement for this course and verbal consent was obtained to perform and record interviews.

The following chart outlines the distribution of the type of interviews conducted.

	In-Person	Skype	Phone	Email
Home Brewers	4	2	4	2
Microbreweries	2	0	(0.5)	(0.5)

Figure 3: Distribution of Methods of Interviews

Results

The results will be presented separately from home brewers and microbreweries. For a complete list of answers, see the appendix.

Home Brewers

Before starting the structured interview, some demographic questions were asked of informants. The following charts detail some of demographic findings:

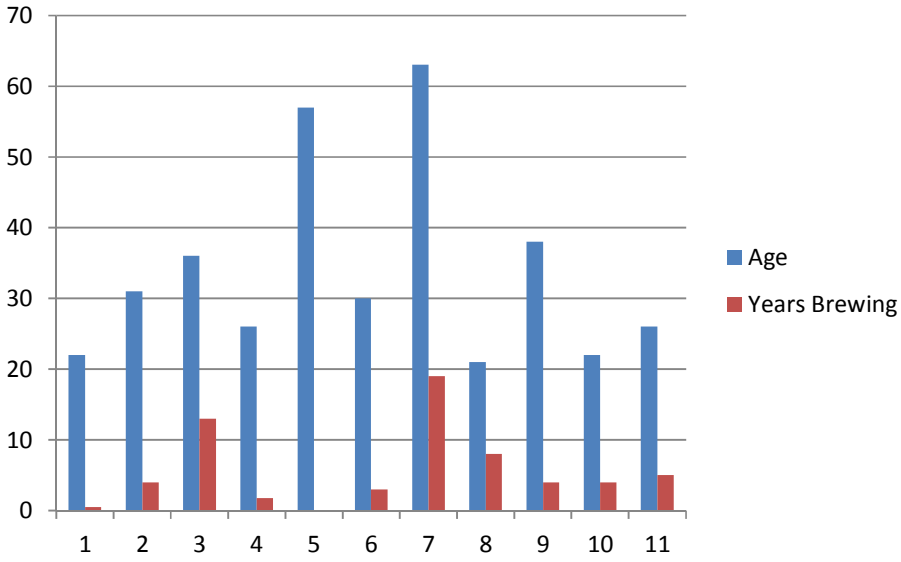
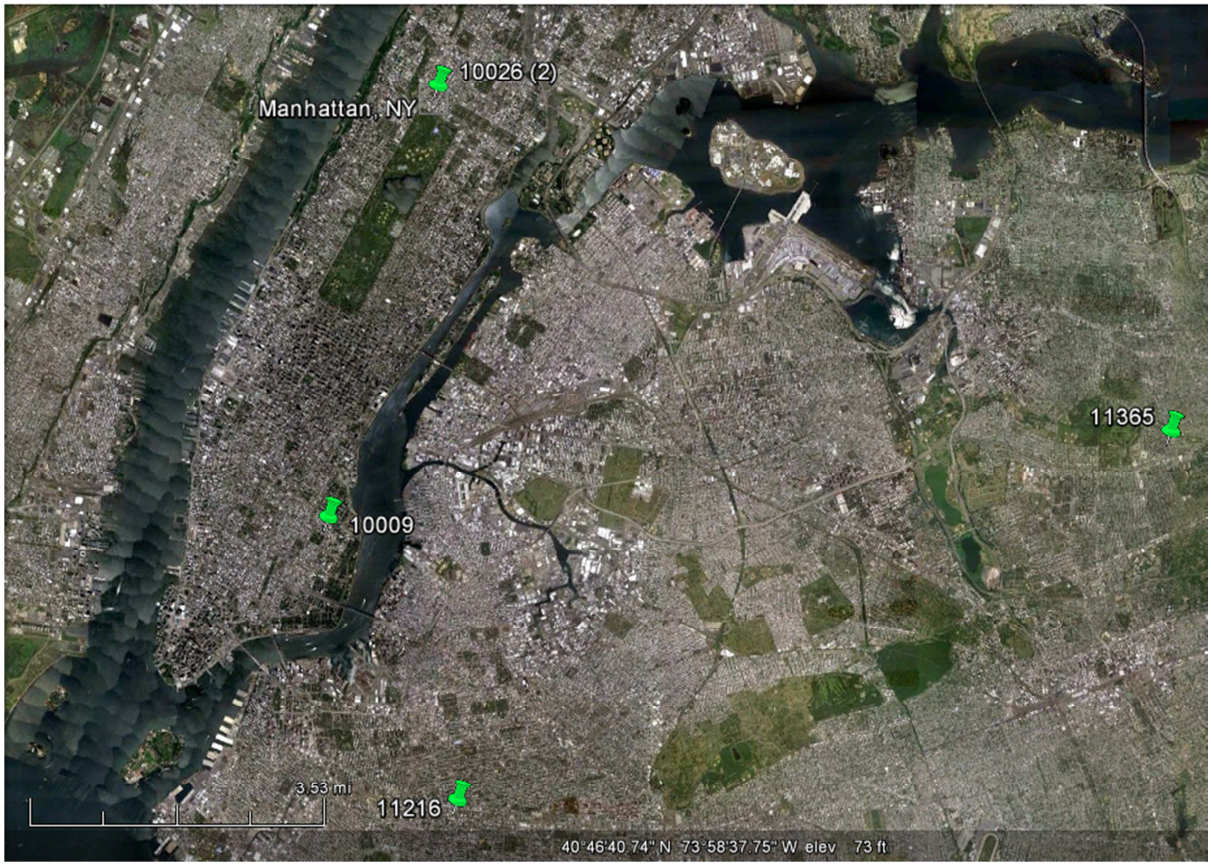


Figure 4: This chart displays the informant's age and number of years brewing. Informant #5 listed “just a few years”, thus I want not able to quantify it in this chart.



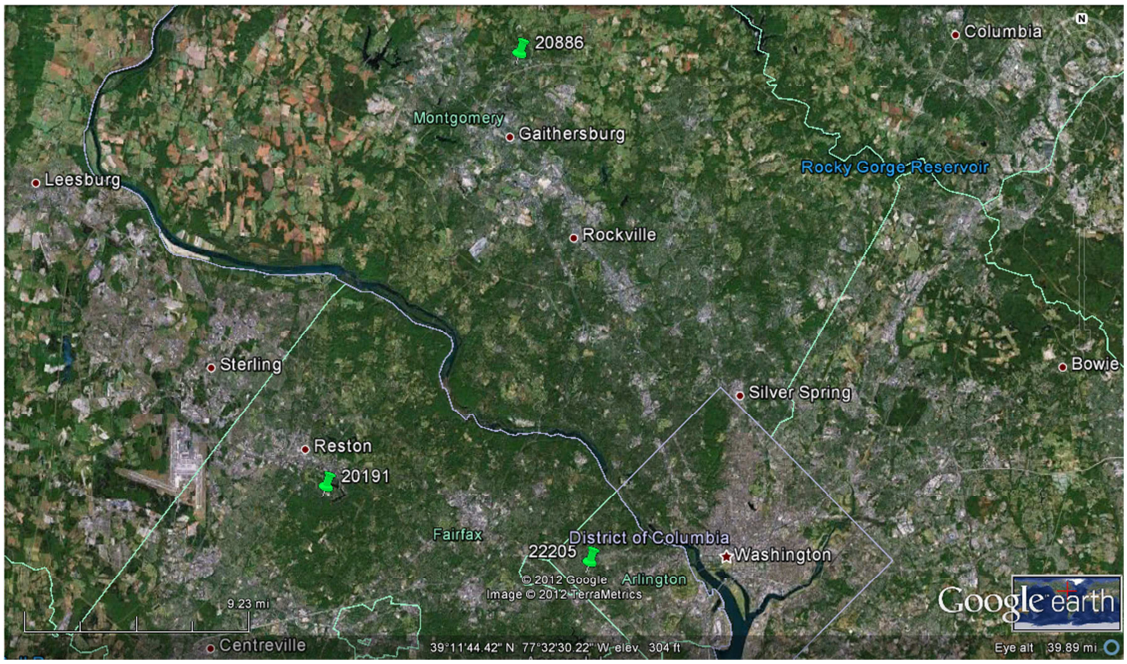


Figure 5: The above images represent two of the main cluster locations of informants: New York City (top) and DC/MD/VA (bottom). Other informants resided in Florida, California, and Germany.

A range of occupations were represented from archaeologists to financial advisors to students; however, the sample was composed only of males.

After the demographic information was collected, informants were asked questions listed in the questionnaire. The first two questions, "Where do you get your hops from?" and "Why do you obtain your hops from this source?" yielded quite consistent answers. Most home brewers used a combination of sources to obtain their hops and rationale as to why they did so. The following charts details the breakdown of where informants obtained their hops and why they chose certain sources:

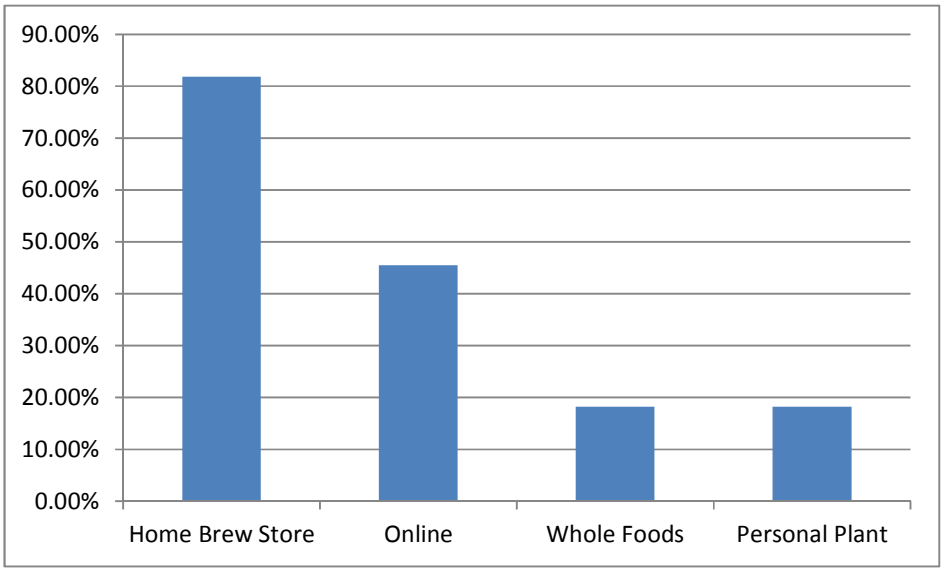


Figure 6: This figure displays the sources of hops for Homebrewers.

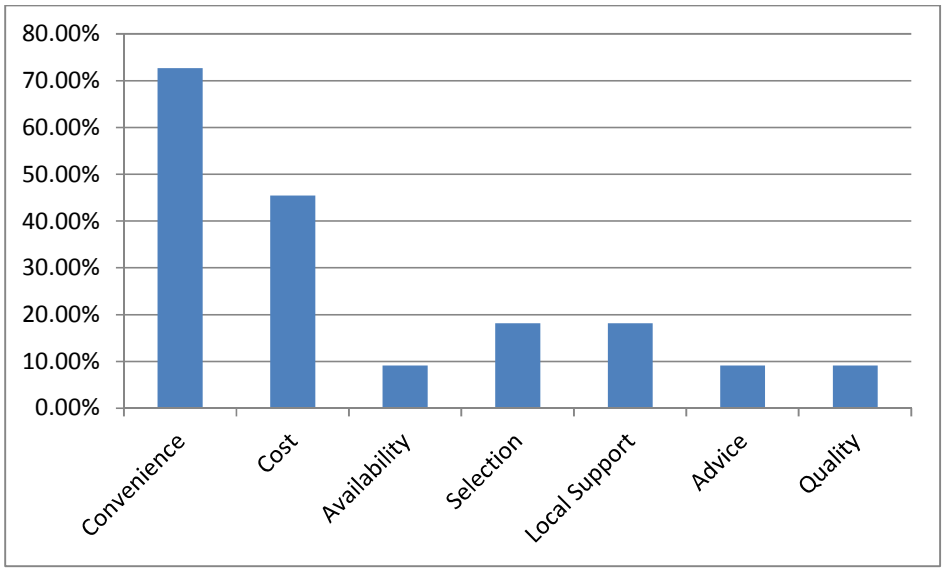


Figure 7: This figure displays the rationale in obtaining hops from certain sources.

The vast majority of informants listed convenience and cost as a major factor in why they obtained their hops for certain retailers. In some instances, certain home brewers opted to go with the more costly option, e.g. specialty home brew stores, for the sake of convenience.

The next questions, "Where are your hops cultivated?" and "Does the location of where your hops are cultivated influence if you buy them?" examined the informants' cognizance of the geographical location of their hops. The majority of home brewers knew the regional sources of their hops (8 out of 11). Region did not heavily influence 4 out of the 11 home brewers when purchasing hops; however, 7 out 11 stated that region was a factor, primarily due to the recipes they were using. Certain recipes are based on a regional style, e.g. American Indian Pale Ale, German lager, English stout, etc., and in order to emulate the style coming from a certain region, certain regional hops are deemed necessary.

The next set of questions asked informants to rate the quality hops from the Czech Republic, Germany, United Kingdom and United States. These particular questions aroused some confusion as some informants were not aware of the quality of hops from certain countries and were quick to point out that their ratings were heavily biased. When ranking the quality of hops in each region independently, the majority of informants gave each country the highest rating. When they had to rank each region against each other, the results were quite spread out; however, the US was given the highest rating by the most number of informants.

The next set of questions attempted to discover other reasons, aside from region, for using certain types of hops. These questions included: "What hop variety do you prefer?", "What is your reason for this preference?" and "What flavors do you look for in a hop variety?" Informants listed a variety of hops, with 'Cascade' topping the list at most mentions. Primarily, informants were looking for hops with 'citrusy' tones and hops that would serve as a good bittering agent.

The last question asked, "What are the differences in hop varieties?" This question also aroused some confusion; however, its purpose aimed to investigate individual perceptions towards the

distinction amongst hops. The three primary differences that informants noted were alpha acid content for bittering, aroma, and taste.

Finally, I asked if informants would like to make any additional comments or include something I might have left out. The majority of informants took this time to impart various pieces of knowledge, which primarily included information about the brewing process and their own personal preferences in hops, beers, and brewing.

Microbreweries

Through personal contact and referrals, I was able to interview three microbreweries in New York City: The Birreria in Eataly, The Brooklyn Brewery, and the Bronx Brewery. Informants were employees of each brewery. At the Birreria and the Bronx Brewery, I was able to talk to the brewers themselves and at the Brooklyn Brewery, I spoke with the Operations Manager. Brooklyn Brewery was the oldest operation, being in business for 24 years, whereas, the Birerria and Bronx Brewery both opened within the past year. The Birreria is actually a collaboration amongst three breweries—Dogfish Head Alehouse, Birra Del Boorgo, and Baladin.

In terms of hops preferences, all three breweries were very cognizant of where their hops came from. All three breweries primarily sourced hops from the Pacific Northwest, such as the Willamette Valley in Washington State and Yakima Valley in Oregon. Brooklyn Brewery also obtains hops for international areas, depending on the brew. Quality was the main rationale in obtaining hops from these sources and in the cases of the Birreria and Bronx Brewery, personal relationships with the hop distributors was also an influencing factor. The location of hop cultivation was not a dominant influencing factor in hop preferences for the Birreria or the Bronx Brewery.

A variety of hops were listed, in terms of what each brewery used, and 'Cascade' was on all their lists. Such hop preferences were due to similar factors that the home brewers listed: alpha acid content, aroma, and taste. The brewer at the Birreria interpreted hop preferences to be the form in which hops were used. These included hop pellets, hop plugs, hop powder, and whole cone hops. A range in flavors was sought out by these breweries, which included citrus, earthiness, grassiness, and zestiness.

At all three breweries, the brewers were in charge of deciding what hops would go into the brews. At the Birreria, 'Wanda' is their best selling beer and Willamette hops are primarily used. At the Brooklyn Brewery, 'Brooklyn Lager' consists of over 60% of their sales, making it their best selling beer, and that brew uses a combination of Cascade and Willamette hops. At the Bronx Brewery, their only beer is the 'Bronx Pale Ale', which uses a combination of Cascade and Centennial hops.

Discussion

The following hypotheses were initially set forth:

1. The majority of home brewers will be conscience of the hop variety they use in their brews.
2. Microbreweries are more likely to use "noble hops" in order to legitimate their brews.

The first hypothesis proved to be true. The majority of home brewers in this study were conscience of the hop variety they used in their brew. The conscientiousness was primarily

derived from personal knowledge or adherence to a recipe. The second hypothesis was proved to be false amongst the three microbreweries that were interviewed for this study. Furthermore, two of the breweries were informally asked about the German purity law, *Das Reinheitsgebot*, and they both stated that while they enjoyed German beer, such a concept was creatively limiting.

Creativity was a major driving factor in the creation and production of beer all across the board. One of my informants mentioned that he never used a recipe twice. My informants enjoyed the experimentation process entailed with brewing and were quick to share some anecdotes. While creativity is important, breweries were cognizant of the importance of consistency, and this point was especially highlighted when interviewing the Brooklyn Brewery.

This project was an attempt to learn about the usage of hops amongst brewers and the underlying reasons for certain preferences. Coming into the project, I was not very knowledgeable about hops or the brewing process. Fortunately, my pool of informants not only possessed a great deal of knowledge, but they were willing to share it. Accessibility was not an issue in this study. Informants were eager to impart their insight and only in the case of the breweries were there slight reservations in disclosing aspects of certain recipes, which included hop preferences and usage.

If I were to do this study again, I would revamp aspects of the questionnaire, especially in regards to regional rankings. While such questions aimed to get deeper insight into the proposed hypothesis, they were a bit flawed and caused confusion amongst my informants. Instead, I would focus on issues like what forms or varietals of hops go into different parts of the brewing the process—the initial boil, during the boil, after the boil (dry hopping), etc.

I am interested in pursuing other tangents that have come to light because of this study. I would like to examine the New York City beer community, in terms of their growing efforts to use local ingredients and the female beer community. Upstate New York used to be a hop growing region; however, that economy declined in the past century. Recently, there has been an effort to reinvigorate New York as a hop growing region. This endeavor was noted by a few of my informants. The Birreria and the Bronx Brewery discussed their efforts to “go local” in their interviews. The Birerria created an Earth Day brew, which used mainly used local ingredients, while the Bronx Brewery formed a partnership with the Botanic Gardens to create an urban hop garden. Efforts to build a community around beer by growing plants locally, is a fascinating area that is worth pursuing. Furthermore, my informants who are part of the New York beer community have noted that there is not much literature on hop preferences.

Another area of interest is females in the beer community. The presence of women in beer is quite low in New York City and while I looked for female informants, they were not as easy to track down as male informants. While this area has less to do with the botanical aspect, it is quite interesting and worth pursuing.

In summary, this project was an effort to learn more about hops. Initially, ‘noble hops’ and remnants of the German purity law was the focus; however, after I started to conduct interviews, such preconceived questions and notions seemed obsolete. Creativity was the driving factor in my sample and that materialized in very different ways my informant pool. In completing this effort, I was able to learn about even more components of the brewing process, and it has provided a springboard in which to investigate further ethnobotanical and anthropological questions.

Acknowledgements
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