

Selling Organic Barley to Craft Breweries¹

A real market opportunity?

With more and more consumers paying higher premiums for organic labeled products, Georgia producers have been exploring the growing market share of organic production, and particularly organic barley, correlated to the “beer boom” in the State.

In 2014, the United States' barley production was about 177 million bushels (USDA, 2015). Half of it is used as livestock feed, and about 25% of the remainder is used for malting, for which barley is the best-suited grain. In Georgia, about 2,000 acres (about 3 million for the country) are dedicated to this crop.

“Barley can grow in Georgia but it is raised more by hobbyists rather than farmers. The seeds are used for beer making, but others harvest the green shoots for juicing.” (The Georgia Gardener.com)

Barley is mainly marketed to malt houses that then sell malts to craft breweries, and there is a high demand for it.

“There are a growing number of craft breweries making beer here in Georgia but pretty much all of their ingredients (besides water) are coming from other places. Barley grown and malted in the Northwest being the main ingredient.” (Lorey, 2012)

How relevant is it to make it organic then? According to the USDA, consumer demand for organically produced goods continues to show double-digit growth, providing market incentives for U.S. farmers across a broad range of products.

“Organic products have shifted from being a lifestyle choice for a small share of consumers to being consumed at least occasionally by a majority of Americans.” (USDA, 2014)

Broadly speaking, health conscious, environmentally friendly consumers are generally willing to pay the price premiums established in the marketplace. Consumers of all-local, craft beer would share the same spirit.

We will be highlighted the organic barley market opportunity, and best promotional strategy to target the population of health conscious, environmentally friendly, and young adults in the State of Georgia.

¹ Based on M. Echols, M. Fletcher, N. Giordano, J. Gray, D. Moore, B. Yelverton, and R. Cottle's project developed for the Agribusiness Marketing Fall Semester 2015.



Organic Barley: what is it?

In a 2013 ranking of cereal crops in the world, barley is 5th in area harvested (49 million ha), tenth in terms of quantity produced (145 million tons), and 19th in terms of yield (29078 hg/ha).

There is this distinction between barley varieties.

“Barley (Hordeum vulgare L.), a member of the grass family, is a major cereal grain grown in temperate climates globally. It was one of the first cultivated grains, particularly in Eurasia as early as 13,000 years ago. Barley has also been used as animal fodder, as a source of fermentable material for beer and certain distilled beverages, and as a component of various health foods. It is used in soups and stews, and in barley bread of various cultures. Barley grains are commonly made into malt in a traditional and ancient method of preparation.”(Wikipedia)

Feed barley is used as food for animals. Prices are often so low that farmers grow other crops, if they can do so. Barley malt is the perfect combination of starch, enzymes, flavors, and aromas for brewing, distilling, baked goods, cereals and confections. Each variety offers a unique flavor for beer and plays a huge role in drawing beer drinkers.



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The guidelines for organic barley are the same as for all organic products.

“Organic is a labeling term that indicates that the food or other agricultural product has been produced through approved methods. The organic standards describe the specific requirements that must be verified by a USDA-accredited certifying agent before products can be labeled USDA organic.”



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Overall, organic operations must demonstrate that they are protecting natural resources, conserving biodiversity, and using only approved substances." (USDA)

The most interesting for breweries and their clientele is that barley:

- ▶ must be grown without synthetic chemical pesticides, herbicides, or fertilizer;
- ▶ must be grown in soil that has been free from such chemicals for at least 3 years;
- ▶ no genetically modified organisms (GMOs) are allowed.

Craft-Breweries: How does organic barley sell?

According to the Brewers Association, Georgia ranks 24th in terms of number of craft breweries, with an economic impact of 1,1 billion. The State counts 75 breweries that can be distinguished:

- ▶ 24 microbreweries (A brewery that produces less than 15,000 barrels);
- ▶ 15 brewpub (A restaurant-brewery that sells 25 percent or more of its beer on site);
- ▶ 2 regional breweries (A brewery with an annual beer production of between 15,000 and 6,000,000 barrels);
- ▶ 1 large brewery (A brewery with an annual beer production over 6,000,000 barrels).



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Microbreweries and brewpub are the main target when evaluating the marketability of organic barley because of their selling directly to consumers who are the most sensitive population regarding organic labelling. Furthermore, this industry could definitely consider targeting the consumers who are willing to pay a higher premium as an advantage.



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Craft Beer Market: SWOT Analysis²

STRENGTH	WEAKNESSES
<ul style="list-style-type: none"> • Growth (18.8% annual growth between 2010-2015) compared to regular Breweries (5.8% annual growth between 2011-2016) • Concentration level is medium • Barriers to entry are medium • Industry Globalization is low 	<ul style="list-style-type: none"> • Regulation level is heavy • Competition level in medium but increasing due to international beer companies promoting their own craft beer.
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> • Growth potential is higher (5.5% annual growth between 2015-2020) than regular Breweries (0.4% annual growth between 2016-2021) • Consumer demand is robust • Organic becomes popular in this industry, prices are decreasing 	<ul style="list-style-type: none"> • Competition with non-organic ingredients and hops • Competition with local, sustainable trends

² Based on IBISWorld 2015 Report "Craft Beer Production in the US", OD4302.



Craft beer consumers and organic consumers' profiles.

The craft beer industry's growth is strongly supported by nowadays trends which aim at supporting quality products, and local production.

"...the local [craft brewing] industry is built on product differentiation, innovation, quality and community. These qualities translate into brewers' desire for freshness and quality, support of local economies, and interest in uniqueness of beer style, all of which lend well to supporting local ingredients." (Oehlke, 2013)

In terms of consumer profile, studies from Mintel (Market intelligence agency) have shown that "Craft beers have found a way to appeal to 49 percent of Millennials [16 to 35 years old] and 40 percent of Gen Xers [36 to 55 years old], but just 29 percent of Baby Boomers and 22 percent of Swing Generation/World War II." (Crowell, 2013).

This profile can be compared with the one of organic products consumers:

"There appears to be a generational difference in preference for organic foods," said Raymond Fabius, M.D., chief medical officer at the healthcare business of Thomson Reuters³. "The strong, positive sentiment among young people indicates they are more concerned with exposure to toxins and place a higher premium on supporting local markets. It stands to reason that, by expanding the network of farmer's markets, we could see a further groundswell around the support for organic foods."

Among those who prefer organic foods, 36 percent said they do so to support local farmer's markets suggesting that the best place to market organic barley would be where there are high concentrations of young adults with a preference for organic and local food movements: a local variety of organic barley would more likely attract craft beer-drinkers.

However, there is a down-side to marketing organic barley to the craft beer industry. First there is the problem in reaching those consumers.

"Seventy-three percent of craft beer drinkers say that they usually know what brand of beer they are going to buy before they go to the store." (Crowell, 2013). This raises the process of recognition of a new craft brew when "Forty-five percent of craft beer drinkers indicate that they would try more craft beers if they knew more about them".

Second, in terms of location the north-west of the United States appears to be the best region for barley production to ensure good yields and it also happens to be one of the

³ <http://www.prnewswire.com/news-releases/thomson-reuters-npr-health-poll-finds-more-than-half-of-americans-prefer-organic-foods-over-conventional-125884728.html>



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most optimized market for both craft beer industry (California, Washington State and Oregon), and organic products (54% in the West and 39% of people in the East who actively try to include organic foods. Also, 50% of people in the city, 46% in the suburbs and 37% in rural areas (Riffkin, 2015)).

Craft Beer Market and Organic Barley: Tentative Marketing Strategy

We will focus on small-scale production at the microbrewery level. Specifically, we will target the micro-malters themselves, who will produce the beer input from the organic barley provided and market the organic part to their customers. We could reach out to the micro-malters by marketing the raw product of organic barley which causes a stronger aroma according to some brewers, and the benefits of using a locally grown product in their beers.

"This trend of local micro-malters is coining the term "craft malt" to reflect the local growers and buyers commitment to creating a unique product that brewers can't get from the large big box malt suppliers." (Morgan, 2013)

Price

The suggested price for organic barley would be \$9.50 per bushel to split the competitive price range provided and still allow the malt house to make a profit. With the barley weighing forty eight pounds per bushel and malt selling at about ninety five cents per pound, the malt house can sell the contents from that same bushel for \$45.60, but still has to account for man hours to produce that malt.

Also, for every smaller brewery, if a run of organic beer is under production then that one brewery will require around one ton of malt per week, which is an order of \$1900 under the same ninety cents per final product of malt provided.

If the organic movement continues to grow, one can expect organic barley prices to drop, which may create even more interest from the breweries that may not have as much capital to expand production and pay the consistent extra money for organic supplies on a weekly basis.

Promotion

One of the most common ways for beginning craft breweries to promote their product is through taste testing sessions and tours. Georgia ranks 45th as a state in breweries per capita, but this number has doubled from around twenty breweries in 2011 to over forty breweries operating now that almost all offer similar forms of consumer engagement (Brewers Association).

Micro-breweries would also promote their organic craft beer mainly by word of mouth, social media, and hosting other social gatherings. When trying to target young adults,



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promoting via social media can help market ads specifically for people interested in organic production or environment sustainability.

Lessons learned

The strong growth in the craft beer industry, the market characteristics, the expanded interest in using local, sustainable production and organic ingredients, are all key factors that lead to the conclusion that demand for organic barley may grow in the craft beer industry through the next several years.

In the South-East particularly, micro-malters could take advantage of the organic barley niche market to promote their production in association with the latest trends like local and environmental friendly production.

Micro-breweries could focus more on the young adults' population through social media, and social gatherings, promoting the organic and local ingredients of their craft beer.



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