

## VERMONT FOOD SYSTEM PLAN PRODUCT BRIEF



## PRODUCT:

*Hops*

### What's At Stake?

There is an opportunity to diversify local agriculture given the large number of Vermont entrepreneurs producing, and consumers purchasing, agricultural products from Vermont. The number of breweries in Vermont has steadily increased to 68 and Vermont ranks first in the United States for breweries per capita (see [Beer brief](#)). Vermont breweries utilize more than 300,000 pounds of hops per year, yet Vermont growers produced less than 20,000 pounds of hops in 2019. This could represent a significant opportunity for Vermont hop growers. Hops production in Vermont represents a virtually untapped market to diversify Vermont farms.

### Current Conditions

In 1860, the peak of state hops farming, Vermont produced over 640,000 pounds of hop cones. By 1910, hop diseases, movement of production to drier climates, and Prohibition led to extinction of hops from Vermont's agricultural landscape. The short growing seasons, moist climate, and pest and disease pressure still make it challenging to grow hops in Vermont compared to more favorable growing conditions in other regions of the world. Adding this to the incredibly high capital investments needed to grow on a commercial scale means hops grown in Vermont can be three times more expensive than hops grown in larger, more well-established hops regions, such as the Pacific Northwest. This results in additional challenges for Vermont farmers to maintain a competitive edge against lower pricing from dominant, large-scale hop-producing regions. Despite these challenges, hops are making a comeback due to recent innovations in hop production, local food movement interests, and applied research.

When craft breweries were first gaining a foothold in Vermont, there was essentially no local hops production, so brewers' business models were built on importing hops. The relatively higher volume and lower cost of these imported raw materials has made it difficult to incorporate the newly available locally grown hops into the brewers' production.

Additional success in breeding programs for hops across the globe has also led to highly desirable proprietary hop varieties with unique characteristics and flavor profiles offered to brewers, which can make it additionally difficult for our regional growers to compete. However, many newer breweries are building their business models to account for higher input costs, and are determined to source ingredients locally.



## Bottlenecks & Gaps

- Potential up-front infrastructure costs of \$13,000/acre, in addition to specialized harvesting and drying equipment requirements and limited examples of successful regional producers, cause farmers to doubt that hops can be a viable agricultural enterprise.
- Growers need support services for plant nutrition, irrigation, pest control, and other cultural management practices, however the only group focused on creating new knowledge is UVM Extension, with limited grant-based funding for personnel with other duties.
- There is not enough regional or local processing capacity.
- Supply of local hops doesn't meet the current needs of local brewers primarily because of cost, inconsistent supply, and lack of desirable varieties, and there is currently no statewide group working in Vermont to advance local hops and other brewing ingredients with brewers or consumers.
- There is a lack of sensory evaluation and related information on the terroir and unique aromatic properties of hops grown in Vermont.

## Opportunities

- The quality and format (pelletized hops) were past concerns of brewers, but may no longer be an issue for locally produced hops as brewers continue to adapt.
- Vermont hops likely have a unique terroir that could be used to develop specialty brews.
- Some Vermont hops producers have built effective relationships with brewers, and helped the brewers convey the importance of local ingredients to consumers.
- There is a perception among consumers that Vermont craft beer is high-quality and unique; when Vermont craft beer includes Vermont ingredients the beer is perceived as even higher-value.
- Understanding terroir helps brewers tell a more compelling story, which increases value to consumers.

## Recommendations

- Increase and permanently fund technical assistance services through UVM Extension, Vermont Agency of Agriculture, Food and Markets, or other stakeholder organizations. The focus should include plant nutrition, irrigation, disease, pest, and weed management, as well as economics and marketing expertise to help differentiate Vermont hops from other hop sources. An additional one FTE would be appropriate to cover all aspects. Cost: \$125,000 for 1 FTE.
- Develop sensory profiles to capture the terroir of Vermont hops and increase market appeal and value to local brewers.
- Incentivize brewers to produce beer with higher quantities of local hops through branding opportunities, or statewide incentives to purchase beer produced with local ingredients.
- Provide assistance with building relationships between Vermont hopyards and brewers, and increasing the visibility of local hops with consumers, to build demand for locally grown hops.

Farm to Plate is Vermont's food system plan being implemented statewide to increase economic development and jobs in the farm and food sector and improve access to healthy local food for all Vermonters.

The Vermont Agency of Agriculture, Food & Markets (VAAFMM) facilitates, supports, and encourages the growth and viability of agriculture in Vermont while protecting the working landscape, human health, animal health, plant health, consumers, and the environment.

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