



H Ā P I
HOP RESEARCH CENTRE



Hāpi-Brewing Success

April to June 2019 Executive Summary

Summary of progress during this quarter

Market development

The programme focused strongly on market development both in New Zealand and overseas. Market visits were made to scope future new markets including Asia, UK and Europe.

These efforts aim to increase awareness among craft brewers of premium New Zealand grown hops and the research and development work that is being done at Hāpi Research. Another aim is to generate craft brewery interest in visiting New Zealand during the hop harvest and drive international attendance of the Hāpi Symposium in April 2020, for local craft breweries to meet, network and learn from their overseas brewing peers, and to help inform New Zealand hop researchers and growers of evolving market preferences.

Plant breeding

The programme has continued with its breeding efforts and will have thousands of seedlings going into the fields this coming spring, with multiple advanced selections proceeding into larger scale plot trials. Limited trial brewing of the advanced selections will occur in the coming quarter. Negotiations with several providers have been under way for the plant breeding project and an initial arrangement has been concluded with one provider.

The plant breeding project is the single most critical aspect of the programme and will be the major determinant of its success. For this reason satisfactory arrangements are required to ensure the required capability and capacity is available to achieve outcomes and to reduce programme risk. All arrangements need to be in place before the next growing season.

Precision farming and processing

The programme is analysing the results from data generated by our precision farming projects, begun before the 2019 growing season. These include:

- Remote plant health data gathered via drone imagery.
- Coconut coir string trials to develop a cost effective and sustainable alternative to nylon.
- Work to better understand and optimise harvest timing for flavour and aroma was initiated and sensory data will be collected from partner breweries over the coming year.

Trial brewing

Trial brewing this year is seeking to evaluate project outputs as well as to develop novel sources of sensory feedback from consumers. Extremely small amounts of first year experimental hops were harvested from the 2019 season, and efforts are underway to begin nano-brew trials with those hops. Specialist small fermenters have been commissioned at Garage Project which will allow us to brew small pilot batches, and crucially introduce dry hopping during active fermentation aimed to mirror the workflow of most craft breweries. We expect to see the amount of experimental hops grow substantially and will look to our craft brewery partners for additional trial brewing support.

Communications and industry engagement

The programme has continued to develop its web-based industry information sharing platform and has two resources ready for publication, a Hop Industry Guide for New Growers and Template Financial Feasibility Model for Hops. The website will be kept up to date with information about Hāpi Research's projects, events, and publications, with the intention of providing a high quality resource for industry stakeholders.

Key highlights and achievements

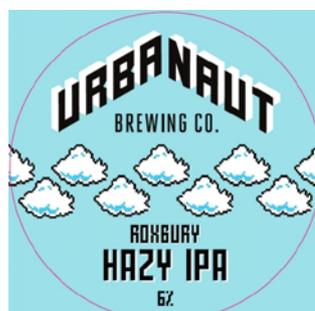
- The beginning of sensory analysis on advanced hop selections.

Upcoming

- Conclusion of and plant breeding arrangements for the programme.

Investment

<i>Investment period</i>	<i>Co-investor contribution</i>	<i>MPI contribution</i>	<i>Total investment</i>
<i>During this Quarter</i>	\$0.196 m	\$0.131 m	\$0.327 m
<i>Programme To Date</i>	\$0.393 m	\$0.262 m	\$0.655 m



Award winning beers brewed with hops from new processing experiments and brewer-grower collaborations.