



The taming of the brew

Ronn Friedlander
AERONAUT Brewing Co.
AERONAUT LABS

June 14, 2017

AERONAUT

STATS:

- Founded in June, 2014
- Brewery, taproom and “Foods Hub”
- Brewed 2000 BBL in 2016 (62,000 gal.)
- 6 production employees



AERONAUT LABS

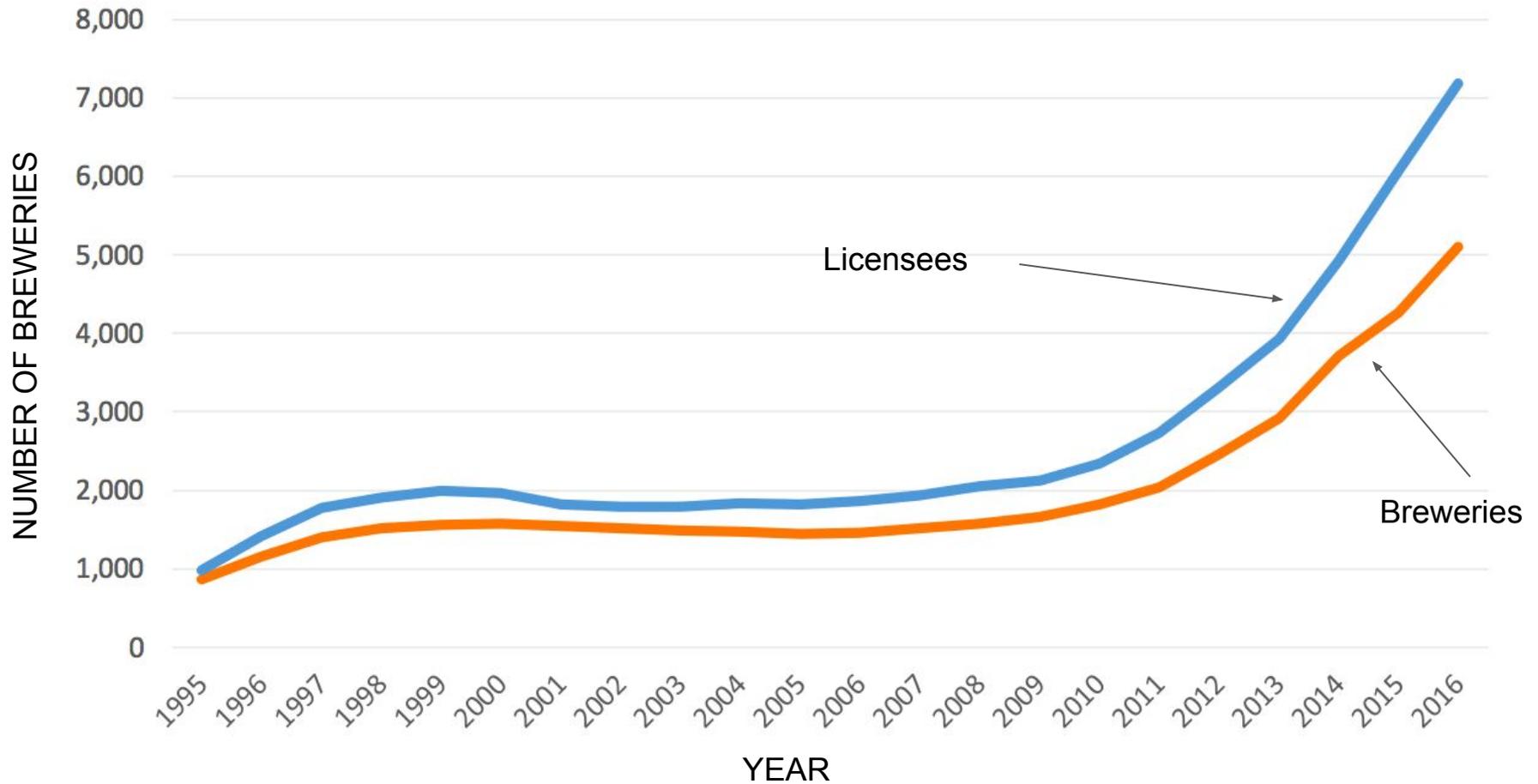


GOAL: Make exciting and innovative new beers

Craft brewing today

There are over 5000 breweries in the U.S.

Breweries and Brewery Permits, 1995-2016



How many beer styles are there?

Beer Style Guidelines



If 5000 breweries choose their styles exclusively from the 121 beers on this list, we end up with a very redundant beer market

2015 BCJP guide lists
121 recognized styles

Redundancy in the marketplace

Beeradvocate®

Search

IPA

beer Exclude "retired" beers from results

Whoa →

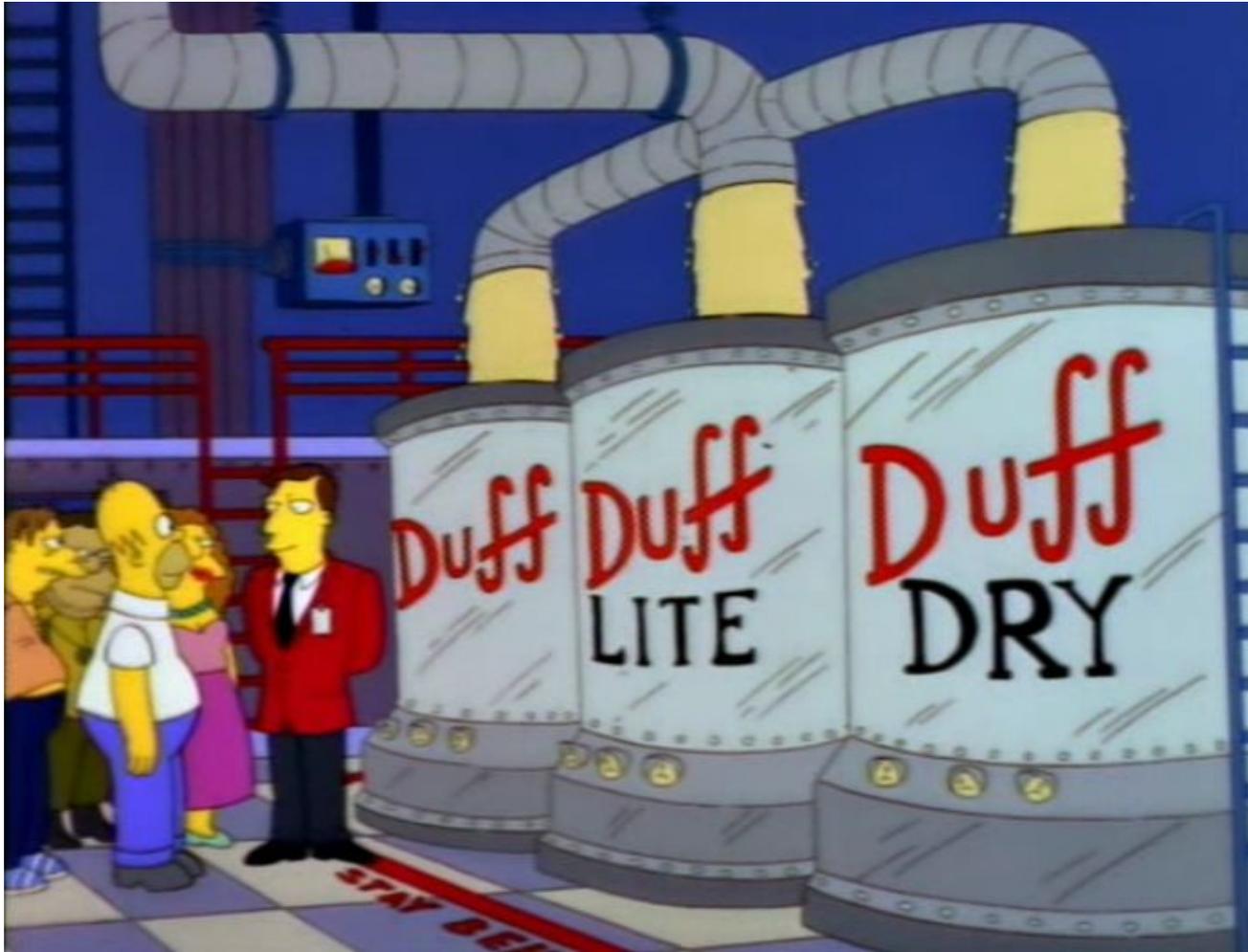
Found: 15156

- Not logged-in. Results limited to first 25 (or less) results.

- **90 Minute IPA**
Dogfish Head Craft Brewery | Milton, Delaware
- **Sculpin IPA**
Ballast Point Brewing Company | San Diego, California
- **60 Minute IPA**

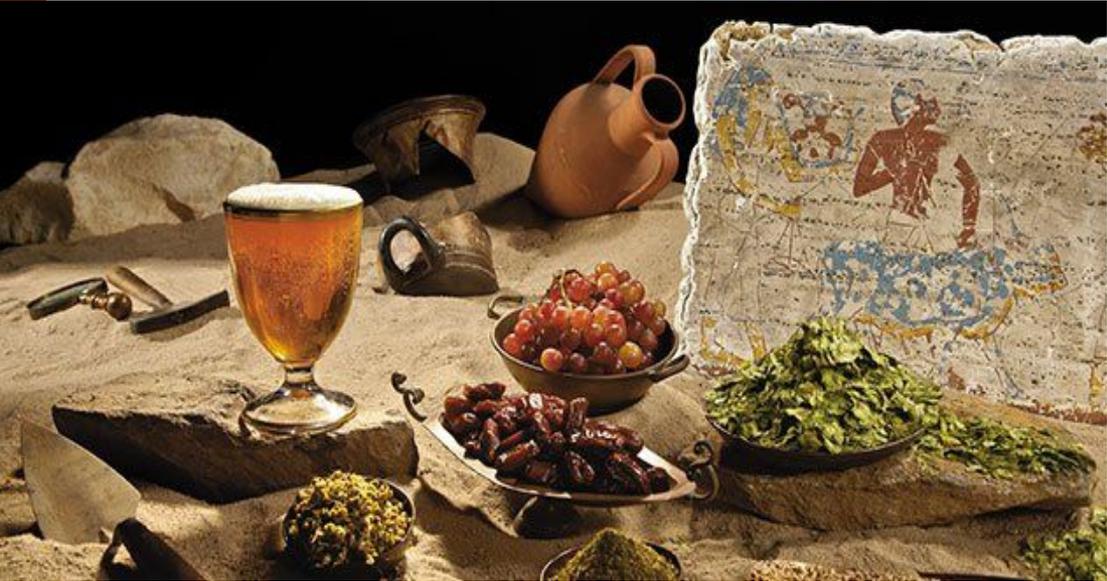
How do we innovate?

New branding



How do we innovate?

New ingredients



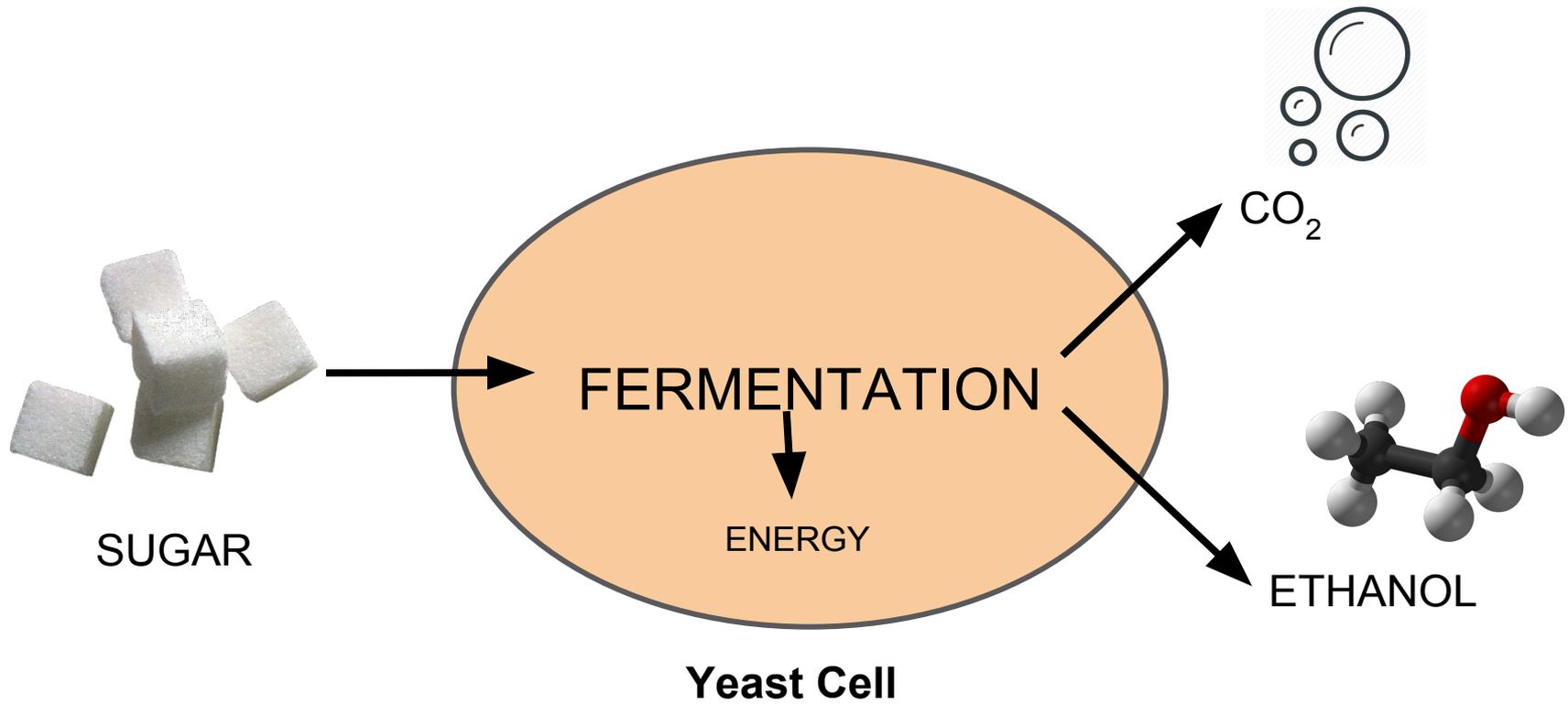
True innovation within the category

Focus on ingredients



Yeast as a flavor engine

Fermentation



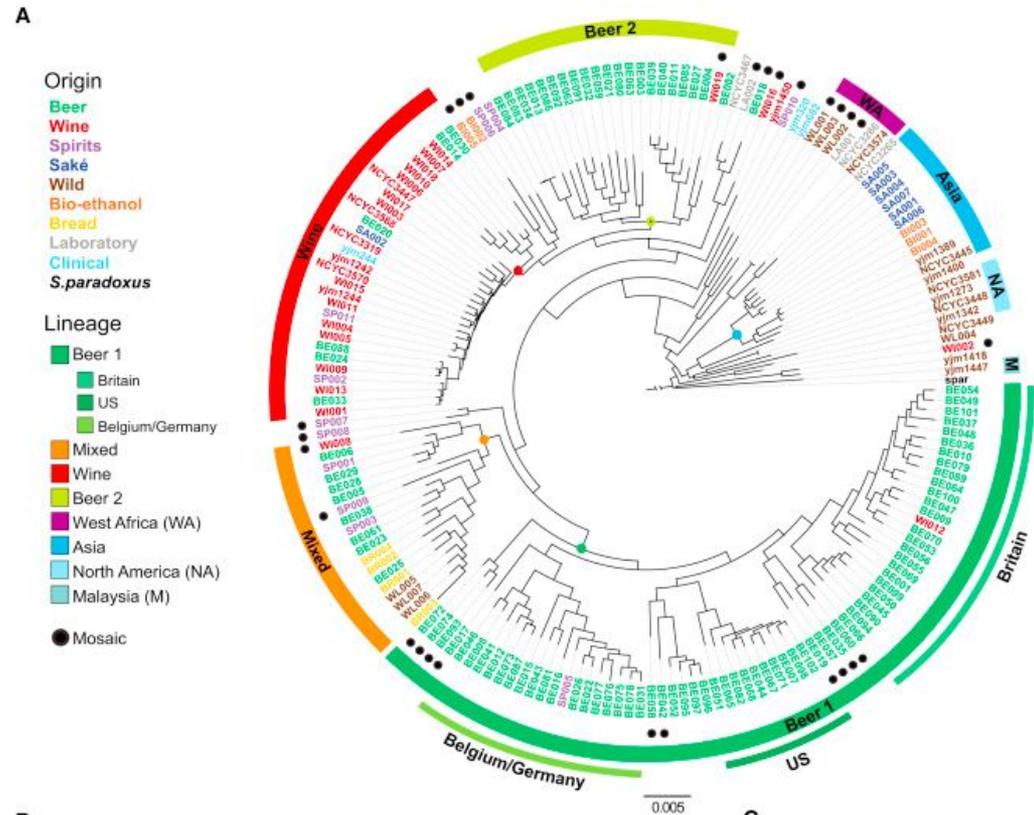
Yeasts used in brewing today

ARTICLE

Domestication and Divergence of *Saccharomyces cerevisiae* Beer Yeasts

Brigida Gallone¹¹, Jan Steensels¹¹, Troels Prah, Leah Soriaga, Veerle Saels, Beatriz Herrera-Malaver, Adriaan Merlevede, Miguel Roncoroni, Karin Voordeckers, Loren Miraglia, Clotilde Teiling, Brian Steffy, Maryann Taylor, Ariel Schwartz, Toby Richardson, Christopher White, Guy Baele, Steven Maere, Kevin J. Verstrepen¹²

“the thousands of industrial yeasts that are available today seem to stem from only a few ancestral strains”

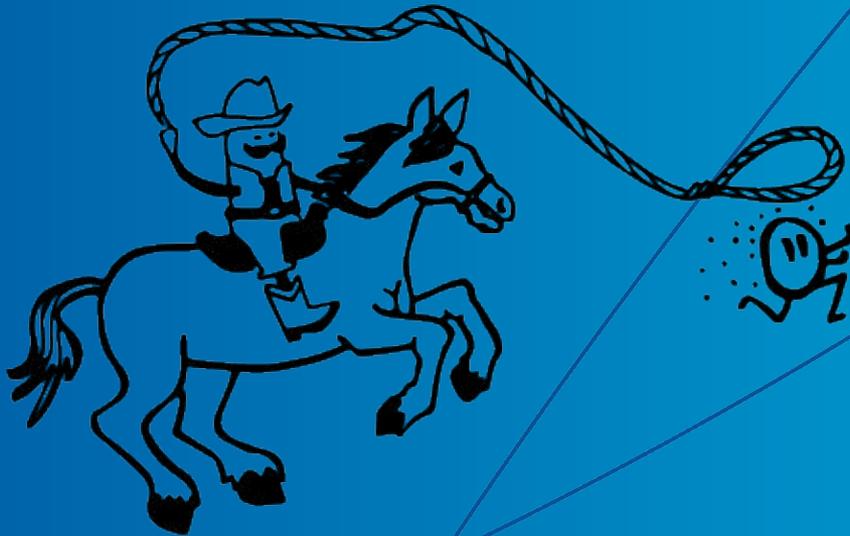


Nature has untold troves of flavor-active molecules



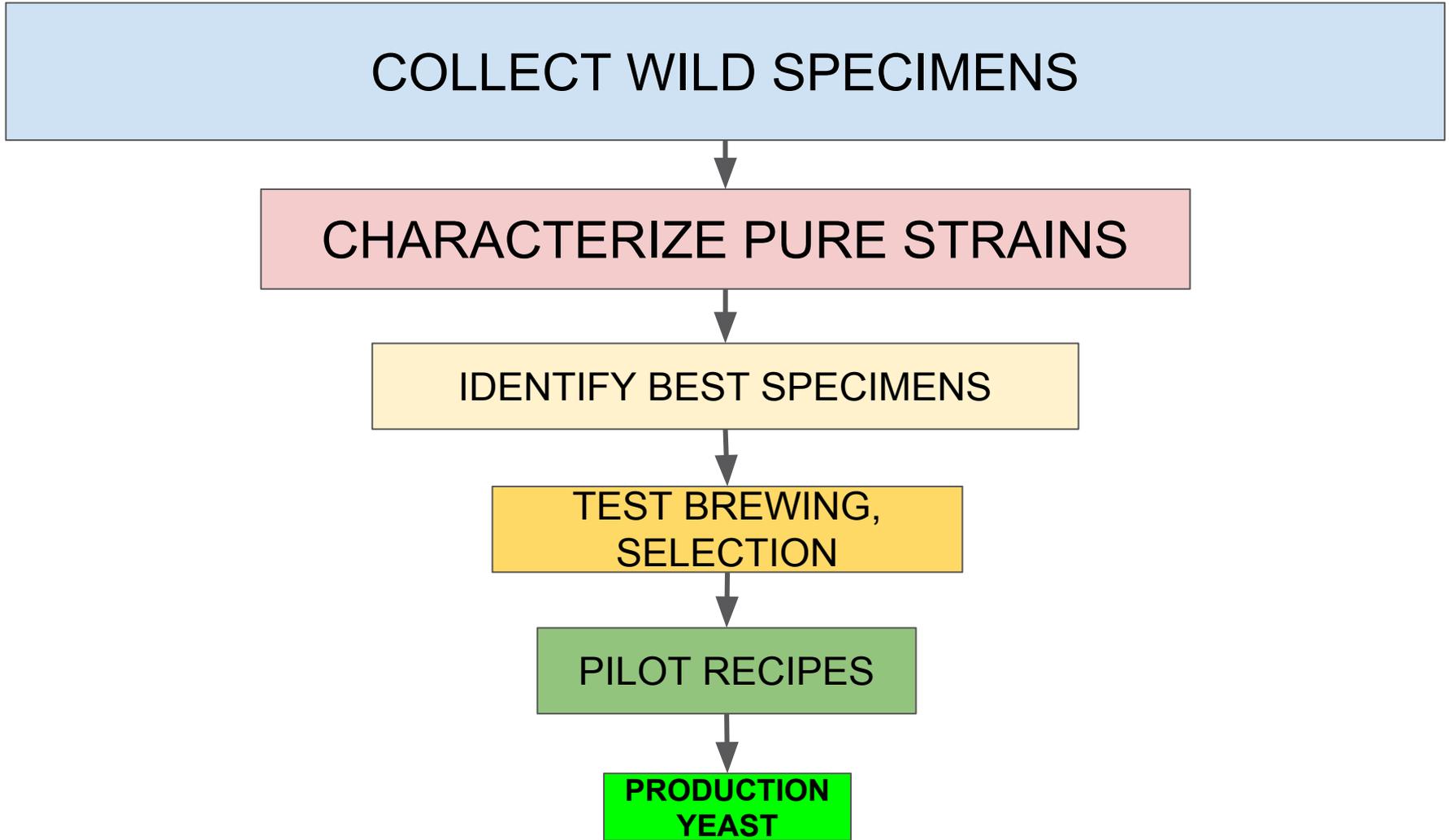
At AERONAUT LABS, we cultivate wild microbes to find new beer flavors.

Wrangling wild yeast



PIPELINE SCHEME

From wild yeast to production

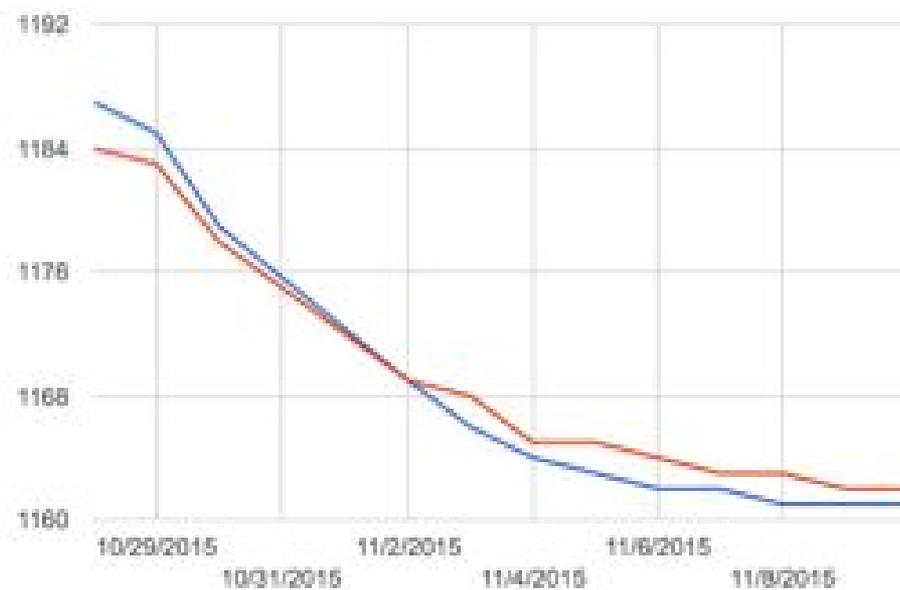


Step 1: Collection



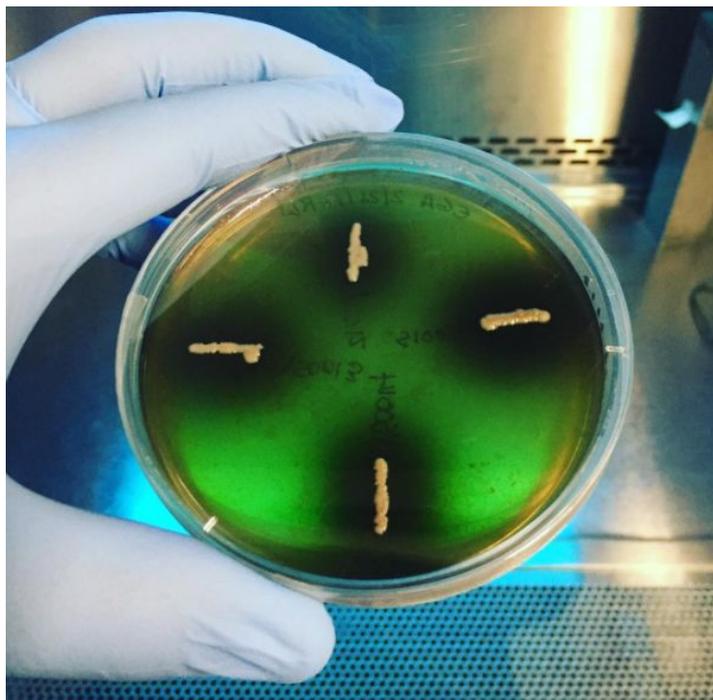
Step 2: Characterization

“The Fermentor”



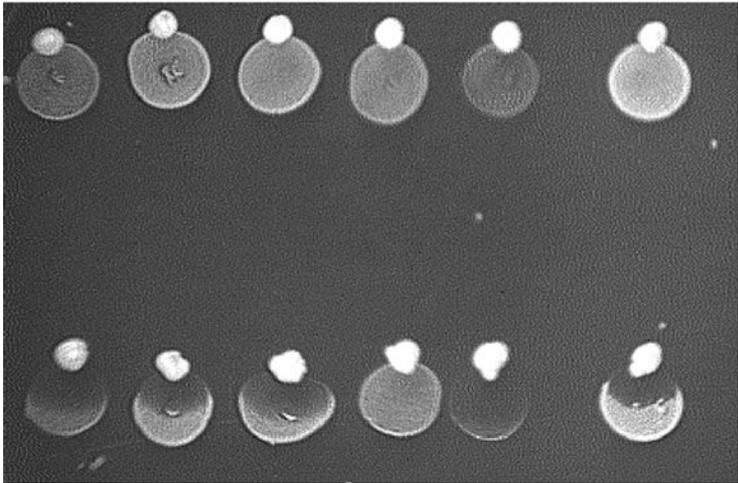
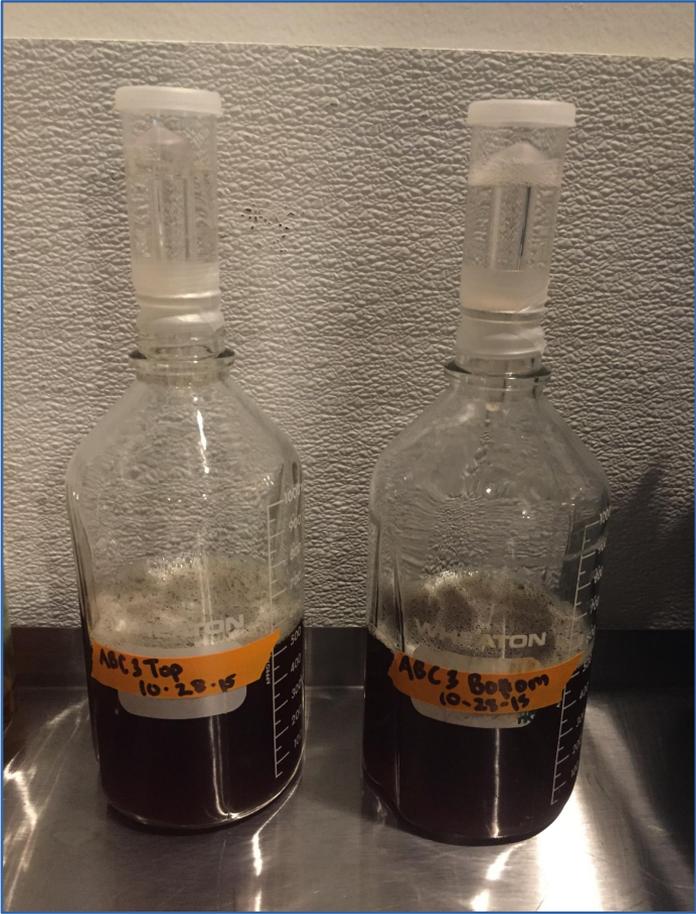
Step 2: Characterization

Metabolism and sensory

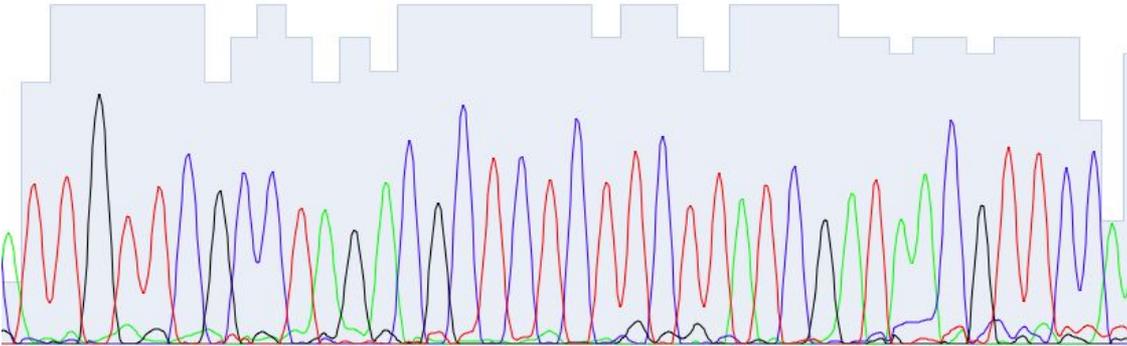
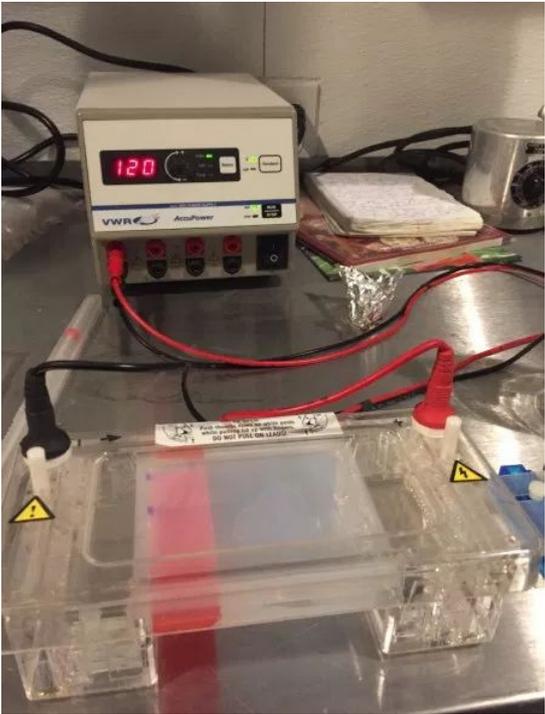
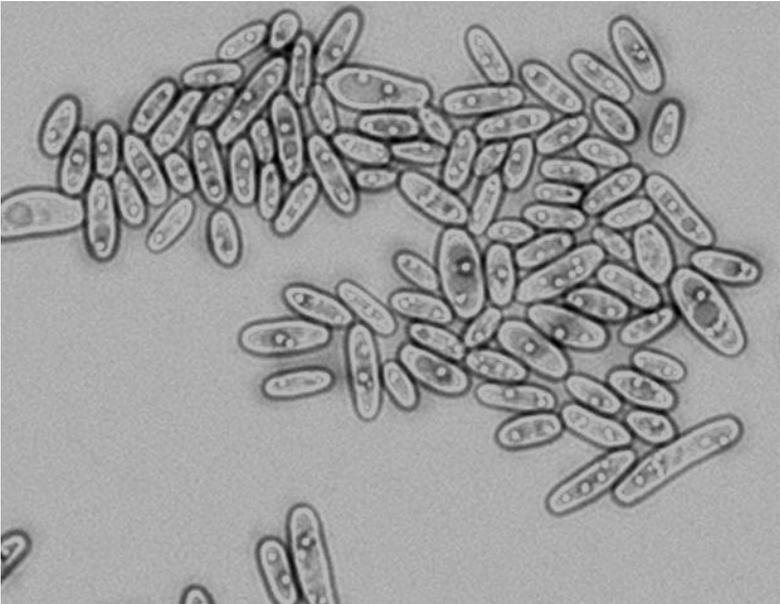


Step 2: Characterization

Flocculation, killing, etc.



Step 3: Identification



Step 4: Selection, prototyping and recipe design

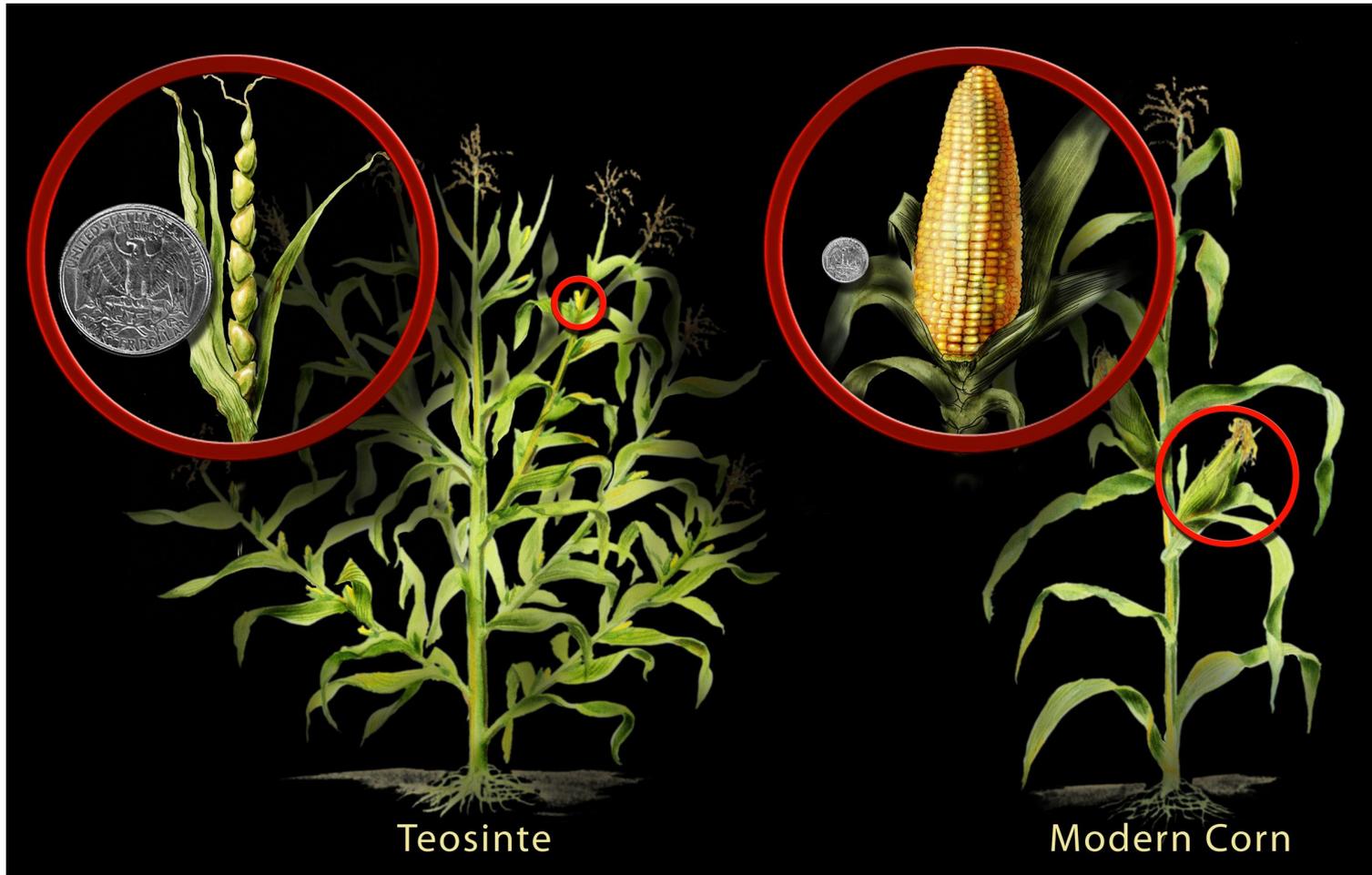


Production



Future work

Breeding and selection to enhance desirable attributes



Questions?

Please use the microphone indicated so our recording includes audio of your question

For further information, please contact
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Or check out our blog at:

<http://www.aeronautbrewing.com/blog/>

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