



HopHaze®

Great haze stability and
flexibility from 100% hops.

CASE STUDY ANHEUSER-BUSCH BREWERS COLLECTIVE



HAAS®

| BarthHaas®



FEATURED COLLABORATORS



**Joe Casey | Anheuser-Busch
Brewers Collective**

Joe Casey is a brewmaster with over 25 years' experience in small- and large-scale brewing operations. Currently, he oversees North American technical brewing support for craft and hop quality at Anheuser-Busch. His expertise spans from brewing raw materials and process aids, yeast and fermentation, finishing, quality, sensory, packaging, food safety, hard cider, hard seltzer, innovation, and procurement.



Dr. Phil Chou | John I. Haas

Phil Chou is Director of Brewing Solutions at John I. Haas. He has extensive experience as a R&D chemist and fermentation scientist, using applied chemical principles to help improve the brewing process and ensure technical success of innovative hop products for HAAS® customers.



Haze stability that's clearly better.

HopHaze® is a new brewing solution from John I. Haas (HAAS®) and BarthHaas® designed to create remarkably stable haze in beer. It's an all-natural, 100% hop-derived product that's added to beer after filtration before the bright tank/pre-packaging. It's flavor-neutral and will not impact the flavor or aroma of finished beer. Year-long trials have shown that HopHaze® will last the entire shelf-life of the beer, without settling out of solution.



HopHaze®

THE STABILITY CHALLENGE

In recent years, hazy style beers—New England IPAs, Hazy IPAs, Juicy IPAs, and more—have exploded in popularity, helping propel the craft industry to new heights of success and winning over a generation of new beer drinkers along the way. While there are many ways to achieve haze in beers, maintaining the stability of that haze during packaging, distribution and storage can be daunting to say the least.

“One of the challenges of hazy IPAs, or any hazy beer style, is to make a stable haze that doesn’t settle out across time,” said Joe Casey, a brewmaster with Anheuser-Busch Brewers Collective. “Nobody wants their beer to look like a snow globe, and nobody wants to experience a bunch of sediment either. Haze stability has been an ongoing technical challenge for brewers for quite some time.”

Casey got his start in the brewing business at Widmer Brothers, known for their flagship beer, Hefe, the original beer that defines American Hefeweizen. “I have a lot of history with haze,” he laughed. “For Hefeweizen, we had a process down to where we were able to manage the haze really well, and it was a pretty stable haze for a timeframe that we found acceptable.”

Over time, as Widmer became part of the Craft Brew Alliance (CBA) and then part of Anheuser-Busch Brewers Collective, Casey was involved with many different kinds of hazy products, across many different breweries and brands. He began to look more seriously at haze solutions.

“We had our eyes out for something to help with haze for a while now,” Casey noted. “Other products we’ve tried, they don’t work very well in hazy IPAs, so we were looking for an alternative.”

In one of the many and regular technical conversations about hops and beer that Joe has with Phil Chou, Director of Brewing Solutions at HAAS®, Phil suggested a new product that would ultimately become known as HopHaze®.

THE HOP-BASED SOLUTION

“One of the things I really liked about it was, it’s 100% hop based,” said Casey. “There are other products out there that are natural, but they’re not made from hops; something already in beer. So you have to think about that when you talk to consumers and when you think about how you’re labeling your beer. Some methods that brewers consider might break away from the traditional ingredients used in beer, but HopHaze® is hop based, so that really attracts me.”

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The other consideration was long-term stability. Anheuser-Busch Brewers Collective ships hundreds of thousands of barrels of beer each year, to distributors throughout North America. So any solution they found needed to be able to scale—and stand the test of time.

“As part of our initial trial, we collected an Imperial IPA into clear bottles to test in different storage conditions so that we could easily, visually, monitor beer haze over time. And that’s really when we started to be sold on the effectiveness of the product.” Casey explained. “We let those clear bottles sit in cold, room temperature, and warm forced conditions for nine months. Across

that time the haze remained homogenous, didn't flake out, and didn't sediment. There were also no unwanted flavor impacts. There literally was virtually nothing on the bottom of the bottle—indicating that nothing had settled out."

Casey was excited. "With haze...let's just say gravity usually wins. So if you can have something that doesn't drop out over time, you're in a pretty good position if you want to make something hazy."



SENSORY TRIALS

Having a long history in hazy beers, Casey was not easily convinced. Anheuser-Busch Brewers Collective needed to see what would happen when things scaled production levels across different types of beers and different brands.

"We took time to find an optimal dose rate," Casey said. "We asked, 'What happens if you don't use enough?' 'What happens if you use five times more than you're supposed to?' What's the normal process and product variation?' We wanted to understand those effects and impacts—to 'negative brainstorm' the process until we felt we had it all sorted out."

A GREAT BREWING SOLUTION

The ultimate test of any new product is, would you recommend it to a fellow brewer?

"Yes, absolutely," said Casey. "I fully realize, if you're at a smaller-scale operation and you're doing draft only, serving beer in your own pub, not distributing around town or in your region, you are dealing with different haze realities that live in a shorter timeframe. But I think your perspective changes when you get towards the other end of the spectrum and have requirements for many months of haze stability in many different conditions and package types."

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“The bigger a brewery gets and the bigger their geographical distribution footprint is, the different types of containers they’re using—bottles, cans, kegs—the shelf life they’re looking for, pasteurization, everything kind of changes. Having different kinds of tools is really helpful.”

Casey continued, “You can make a stable haze in a draft-only beer, and it looks great for three weeks at your pub. But when it takes you three weeks to get the

beer from your place to distributor, and then another couple weeks to get from the distributor to the account, and then they don’t tap it for another week on top of that, most hazy beer is going to settle out and you’re going to have some separation issues.”

“With HopHaze®,” says Casey, “I think we’ve found another reason to love hops. I think HopHaze® is something that has the potential to move the industry forward.”

To learn more about HopHaze®, visit our website, contact your local HAAS® sales representative, or your favorite HAAS® Distribution Partner.

johnihaas.com/hop-haze

ABOUT ANHEUSER-BUSCH BREWERS COLLECTIVE

Brewers Collective is the craft business unit of Anheuser-Busch, which is advancing the beer category by bringing together a shared commitment to quality, communities and innovation with a mission to energize how people view, consume and experience beer.



ABOUT HAAS® & BARTHHAAS®

John I. Haas is a proud member of BarthHaas®. With branches in Germany, the USA, the UK, Australia and China, BarthHaas® conducts business on every continent. It is a world leader in breeding, growing, processing, and marketing hops and hops products. The group’s portfolio also includes storage and logistics services, hop research and development, and application technologies for the brewing industry.

