NEIPA The Craze for Haze

By Luke Moran and Clint Fisher

The battlefield:

- It’s the battle of the IPA’s, West Coast vs East Coast
- West Coast IPA’s have dominated the craft beer scene for years popularised by Russian River, Pliny and Stone, Ruination
- New kid on the block in the form of NEIPA’s
- Lobby for inclusion to the BJCP style guidelines, but currently, NEIPA’s do not officially exist
- Why?? Traditionalists view the haziness of the style as a fault?

Where did it all start?

- John Kimmich, owner/brewer of The Alchemist in Waterbury, Vermont
- Kimmich began brewing Heady Topper in 2004 at the former Alchemist brewpub. He reportedly brewed the first BIPA. "I doubt this beer would come close to the dizzying heights of Bobby-D's BIPA"
- Others such as: Fiddlehead Brewing, Hill Farmstead Brewing, Other Half Brewing, and Tree House Brewing in the region of New England

Characteristics of the ‘style’:

- Haze (Turbid), likened to the appearance of orange juice
- High hop aroma and flavour with subdued bitterness
- Esters: Tropical fruit, stone fruit, melon, mango, tangerine, passionfruit
- Creamy and smooth mouthfeel
- Mild honey-like sweetness
- Higher FG than West Coast counterparts

Comparison to West Coast:

West Coast	East Coast
Clear to mild haze	Turbid haze
Clean yeast profile, low esters	Fruity yeast esters
High hop bitterness	Subdued bitterness
High hop aroma	Very high hop aroma
Dry bitter finish	Lightly sweet, fuller, creamier
Hop profile: citrus, resin, dank	Tropical fruit basket

Why the haze?

- Use of protein forming malts: Flaked oats, Flaked barley, Flaked corn, Wheat, even flour!
- Hop haze from larger quantities and multiple dry hop additions
- Biotransformation: Dry hopping during active fermentation transforms hop compounds into different flavours. During bio-transformation, the hop oils would interact with the highly active yeast and non-aromatic glycosides transform into aromatic terpenoids.
- Biotransformation thought to cause a reduction in flocculation (theory)
- Whirlpool hops: whirlpool hops can contribute tannin and polyphenols which are haze contributors
- No fining or filtration

Contributors to mouthfeel:

- CaCl: Higher ratios of Cl:SO4 (2 or 3:1) High chloride levels are reported to increase the body of the beer and provide a smooth and silky mouthfeel and accentuate the malt profile of the beer
- Base malt selection: Flavourful base malts, eg. MO, Golden Promise in addition to or combined with 2 row
- Protein rich malts: Oats in particular produce a silkier mouthfeel

Yeast:

- Wyeast WY1318 – London Ale III (Boddingtons)
- Conan Yeast GigaYeast - GY054 Vermont IPA (Cultured from Heady Topper)
- While WY1318 is a reportedly flocculant strain, the yeast does not seem to behave this way in NEIPA. Conan is well known to be lightly flocculent and a haze contributor.
- Important characteristics:

1.) They are both capable of biotransformation.

2.) They both produce esters that are very complimentary to IPA type hops. Peach, berries, apricot, citrus but not so much of the darker fruit esters.

One other popular yeast is WLP007 which is an extremely high flocculating yeast, but is reported to be virtually non flocculent in NEIPA.

- Wyeast WY1450 – Denny's Favourite 50 ??

Hops:

- Commonly used varieties exhibit tropical and stone fruit with light citrus notes:
- Citra: Citrus and mango
- Galaxy: Tropical fruit, passion fruit
- Mosaic: Blueberry, tangerine, papaya
- El Dorado: Tropical fruit, pear, watermelon and stone fruit
- Azacca: Apricot, ripe mango, orchard fruit, orange, grapefruit and pineapple
- Equinox: Citrus, tropical fruit, floral and herbal
- NZ Hops: ??

Luke’s Recipe:

Batch size: 20L

OG: 1.067 **FG:** 1.017

Abv: 6.81 **IBU:** 44

Mash: 67C

Water: Carbon filtered tap water

Malt:

67% Gladfield AA

16% Gladfield Vienna

6% Flaked oats

6% Wey Wheat malt

4% Bairds Med Crystal

Yeast:

WY1318 London III (2L starter pitched whole) fermented at 20C

Hops:

0.9g/L Columbus at 60 mins

1.7g/L ea. Galaxy, Amarillo at 5 mins

Whirlpool: for 20 mins (70C)

1.3g/L ea. Galaxy, Mosaic, Amarillo

Dry Hop:

1.3g/L ea. Galaxy, Mosaic, Amarillo after 5 days (krauzen had dropped as he was away), dry hop 5 days

Kegged after 10 days, no CC or gelatine

Clint's Recipe:

Batch size: 23L

OG: 1.060 **FG:** 1.014

Abv: 6.15% **IBU:** 62

Mash: 66.5C / 71C / 75C

Water: 100% RO (9g CaCl, 4.5g Gypsum)

Malt:

63.5% Gladfield AA

9.5% Wey Munich II

15.9% Flaked oats

6.3% Wheat malt

3.2% C60

1.6% Acidulated Malt

Yeast:

WY1318 London III (2L starter) at 19.5C

Hops:

Whirlpool 1 for 40 mins

1.3g/L ea. Galaxy, Citra, Kohatu

Whirlpool 2 for 20 mins (90C)

1.3g/L ea. Galaxy, Citra, Kohatu

Dry Hop 1:

1g/L ea. Galaxy, Citra, Kohatu after 4 days at SG: 1.028

Dry Hop 2:

1g/L ea. Galaxy, Citra, Kohatu after 7 days

Kegged after 13 days, no CC or gelatine