

Verdant Brewing - Even Sharks Need Water (clone) - 6.6%

New England IPA

Author: Verdant / The Malt Miller

Type: All Grain

IBU : 25 (Tinseth)  
BU/GU : 0.4  
Colour : 8 EBC  
Carbonation : 2.4 CO2-vol

Pre-Boil Gravity : 1.048  
Original Gravity : 1.063  
Final Gravity : 1.013

Fermentables (1.58 kg)

910 g - Maris Otter (Extra Pale) 3.1 EBC (57.6%)  
230 g - Pale Ale Golden Promise 5 EBC (14.6%)  
150 g - Cara-Pils/Dextrine 3.9 EBC (9.5%)  
150 g - Oats, Flaked 2 EBC (9.5%)  
70 g - Wheat Flaked 3.2 EBC (4.4%)  
70 g - Wheat Malt 3.5 EBC (4.4%)

Hops (96.5 g)

First Wort 60 - 1.6 g - Hallertau Magnum - 12...

Hop Stand

20 min hopstand @ 80 °C  
20 min 80 °C - 14.6 g - Citra - 12.4% (10 IBU)  
20 min 80 °C - 7.3 g - Galaxy - 14% (6 IBU)

Dry Hops

Day 7 - 43.8 g - Citra - 12.4%  
Day 7 - 29.2 g - Galaxy - 14%

Miscellaneous

Mash - 5.76 g - Calcium Chloride (CaCl2) 33 %...  
^ Lot # 115038  
^ Brouwstore (NL) 055.035.0  
Mash - 0.31 g - Canning Salt (NaCl)  
^ Albert Heijn (NL)  
Mash - 0.88 g - Epsom Salt (MgSO4)  
^ Lot # /2119000091  
^ Brouwstore (NL) 055.027.7  
Mash - 0.89 g - Gypsum (CaSO4)  
^ The Malt Miller (UK) CHE-03-004  
Mash - 0.3 ml - Lactic Acid 80% 80%  
^ Lot # 20200213  
^ Brouwstore (NL) 003.002.3

Yeast

0.6 pkg - Lallemend Verdant IPA Yeast  
^ Rehydrate as packet instructions

01 Brouwpunt 5L (60min) (rev 3)

Batch Size : 5.6 L  
Boil Size : 7.76 L  
Post-Boil Vol : 5.96 L

Mash Water : 4.74 L  
Sparge Water : 4 L  
Boil Time : 60 min  
Top-Up Water : 0.66 L  
Total Water : 9.4 L

Brewhouse Efficiency: 71.8%  
Mash Efficiency: 73.3%

Mash Profile

High fermentability  
73.3 °C - Strike Temp  
67 °C - 45 min - Temperature

Fermentation Profile

Ale  
20 °C - 14 days - Primary

Water Profile

02 NL Spa Reine Flat Mineral Water (www.ah.nl...  
Ca 100 Mg 11 Na 16 Cl 154 SO 93 HCO 17

SO/Cl ratio: 0.6  
Mash pH: 5.39  
Sparge pH: 6

Measurements

Mash pH:  
Boil Volume:  
Pre-Boil Gravity:  
Post-Boil Kettle Volume:  
Original Gravity:  
Fermenter Top-Up:  
Fermenter Volume:  
Final Gravity:  
Bottling Volume:



8 EBC

Recipe Notes

From: https://www.themaltmiller.co.uk/blog/verdant-ipa-yeast-home-brewing-competition/

James Heffron (Head Brewer at Verdant) has kindly given us his recipe for Even Sharks Need Water and awesome advice of their brewing techniques at Verdant:

# Verdant Brewing - Even Sharks Need...

## Recipe Notes

### Even Sharks Need Water

I think we first brewed this beer in early 2016 on a 200L kit! We had just managed to get hold of some rare as rocking horse shit Galaxy hops and it was a no brainer to pair it up with Citra in a NEIPA. The aim for the beer was and still is to be pretty full on flavour and aroma wise, not shying away from the aggressive nature of Galaxy. It's a pretty brash hop, harsh bittering qualities coupled with mega high dry hop polyphenols makes for a very 'green' experience early doors. Skilful use of the hop and a bit of patience helps bring the tropical and creamy nature to the fore. In my experience different hop varieties make for differing amounts of haze or 'murk' in the finished beer. With sharks we use the top 2 murk producing varieties out there! Expect an opaque light yellow creamy/yoghurt affair that has a soft smooth body leading to an assertive finish. Aromas should leap out, flavours should fully saturate and if brewed well it should have a lovely fluffy white head on it that lasts.

With regards to a suitable water profile for ESNW I would encourage home brewers to experiment. Get a good accurate water report for your area specifically focussing on ppm's for Calcium, Chloride, Magnesium, Sodium, Sulphate and Bicarbonate. Down in Cornwall we have predominantly soft water ranging from 'moderately soft' to 'very soft'. This basically means ppm's for all the cations and anions are very low, it also means we have a great base line water source for building style profiles.

I know some brewers who utilise reverse osmosis techniques to almost entirely demineralise their water, but I like the fact that all we do is run it through a sediment filter and then a carbon filter. This removes any rust or debris from old mains water pipes and also the volatile low level chlorine used to kill bacteria. Working with the water in your area, in my opinion, is one of the most exciting parts of brewing that's similar to the concept of 'terroir' in farming. With sharks we push Chloride up to around 230ppm, we leave Sulphate at base mains level (10ppm), we elevate Sodium to around 50ppm. The Sodium Chloride is added to the boil and the Calcium Chloride to the mash. By doing this we create a very soft mouthfeel but without elevating Calcium levels above 100ppm. You don't need to try and emulate this profile though, in fact I would suggest not too if your base line is too far off initially. It's far more important to work with what you've got and tweak from there.

Other tips for success with a NEIPA would be to monitor your PH's. Mash should be 5.2-5.3 at 20 degrees C. Pre-boil 5-5.1, post boil 4.9-5.05, sparge 5.5-6, post ferment 4.3, post dry hop 4.5-4.8. Oxygen will ruin your beer faster than anything else. Trying to mitigate this at home-brew level is going to be tricky. I would suggest closed transfer under pressure to separate purged vessel for dry hopping, force carbonating and not bottle conditioning. Do not hunt for biotransformation, wait for the ferment to finish, make sure it passes a forced diacetyl test, soft crash to 15 and then dry hop. You will avoid hop creep this way. Hop creep is something we don't like at Verdant, it makes for an over attenuated beer that has far more diacetyl to clear up.

Regarding our yeast, pitch at 18 and let rise to 19 and hold. Free rise to 22 for D rest once gravity is at about 1.030. The dry yeast version rages! Expect a massive krausen and potentially higher than anticipated attenuation on generation 1.