PLINY THE ELDER CLONE
19L ALL GRAIN RECIPE KIT

Double IPA
Est. OG: 1.073 **Measured:** _____
Est. FG: 1.012 **Measured:** _____
IBU: 90-95
Colour: 13.4 EBC
Alcohol: 8.2%
Boil: 90min
Pre-boil Volume: 28.6L
Pre-boil Gravity: 1.058
Volume to Fermenter: 22.7L
Bottling Volume: 19.8L

Equipment Requirements
1. A starter brewing kit with fermenting and bottling equipment
2. Hot Liquor Tank
3. Mash Tun
4. Boil Kettle
5. 30x 750mL bottles and caps
6. Stainless Steel Spoon (recommended)
7. Immersion Chiller (recommended)

This kit assumes a basic understanding of home brewing procedures. If you have any questions feel free to get in touch with us.

Recipe
6.10kg American Ale
0.27kg Carapils
0.27kg Light Crystal
0.33kg Dextrose

100g Columbus @90min
20g Columbus @45min
28g Simcoe @30min
70g Simcoe @0min
28g Centennial @0min

28g Centennial Dry Hop #1
28g Columbus Dry Hop #1
28g Simcoe Dry Hop #1
7g Centennial Dry Hop #2
7g Columbus Dry Hop #2
7g Simcoe Dry Hop #2

Brewing Procedure
The following instructions are based on a system which uses 30L kettles and a 5 gallon cooler mash tun. You may need to adjust water volumes and temperatures to suit your system.

Preparation
1. Check you have all of your grains, hops, yeast and any extra consumables, such as irish moss.
2. Make sure all of your vessels are clean, taps are closed and your gas bottle is full (if required).

The Mash
3. Heat 19L of water to 72°C in your HLT and transfer to your mash tun.
4. Slowly pour the crushed grain into the mash tun. Stir well to break up any dry clumps of grain.
5. Measure the mash temperature. This should be within a degree of 66°C. If it is too hot, continue adding cups of cold water until you each the correct temperature. If it is too cold, apply gentle heat or add hot water while stirring the mash.
6. Put the lid on and let the mash rest for 60 minutes, staying as close to 66°C as possible.
7. While you are mashing, heat 18L of water in your HLT to 75°C.
8. Optional - Mash out. After the 60 minute mash, apply gentle heat to the mash tun to heat it to 75°C. Rest at this temperature for 10 minutes.
9. Begin the vourlauf. When your runnings are clear, start transferring to your boil kettle and sparge with 18L of water at 75°C.
10. When your mash tun has drained you should have approximately 29L in your boil kettle. Turn on the heat.

The Boil
11. Add your dextrose to the boil kettle, stir it in and take a preboil gravity reading.
12. When the wort hits a boil set your count-down timer to 90 minutes and add your hops at the designated times, as shown on the hop packets. **This is a good time to make sure your fermenter is clean and sanitized.**
13. Optional - with 15 minutes remaining in the boil, add your immersion chiller (if you use one), any kettle fining agent, and yeast nutrient.
14. At the end of the boil, turn off the heat and put the lid on your kettle.
15. Cool the wort using your chosen method. We highly recommend the use of an immersion chiller or plate chiller for fast cooling. If you don't have one, you can cool it using an ice bath.
16. Transfer the wort to your sanitized fermenter. Take a gravity reading and aerate the wort. If you don't have an aeration kit, shake the fermenter vigirously for at least 60 seconds.
17. When your wort has cooled below 18°C, pitch your yeast.

Fermentation and Packaging
18. Ferment at 18°C. If you have a temperature controlled environment, raise to 21°C after high krausen for a diacetyl rest.
19. Add your first packet of dry hops to the fermenter on day 5 of fermentation.
20. Add your second packet of dry hops to the fermenter on day 12 of fermentation.
21. After 5 more days in the fermenter, take your final gravity reading, transfer to a secondary fermenter (optional) or bottle it.

Your beer will be carbonated and ready to drink within two weeks. This beer is best enjoyed fresh, so drink it while it is young!

WWW.BEERNECESSITIES.CO.NZ ADMIN@BEERNECESSITIES.CO.NZ 8/94 BIRCH AVE, TAURANGA