

# the Clone Ranger (IPA) v1.6

American IPA (14 B)

**Type:** All Grain  
**Batch Size:** 4.00 gal  
**Boil Size:** 5.01 gal  
**Boil Time:** 60 min  
**End of Boil Vol:** 4.51 gal  
**Final Bottling Vol:** 3.75 gal  
**Fermentation:** Ale, Two Stage

**Date:** 01 May 2020  
**Brewer:** MelloMoose  
**Asst Brewer:**  
**Equipment:** ANVIL Foundry  
10.5 (5 gal batch) size  
**Efficiency:** 68.00 %  
**Est Mash Efficiency:** 73.6 %  
**Taste Rating:** 30.0



## Taste Notes:

## Ingredients

| Amt           | Name   | Type   | #  | %/IBU     | Volume   |
|---------------|--|--------|----|-----------|----------|
| 10 lbs 4.2 oz | Pale Malt (2 Row) US (2.0 SRM)                 | Grain  | 1  | 95.1 %    | 0.80 gal |
| 8.4 oz        | Caramel/Crystal Malt -120L (120.0 SRM)         | Grain  | 2  | 4.9 %     | 0.04 gal |
| 0.40 oz       | Chinook [13.00 %] - Boil 60.0 min              | Hop    | 3  | 21.2 IBUs | -        |
| 0.40 oz       | Simcoe [13.00 %] - Boil 60.0 min               | Hop    | 4  | 21.2 IBUs | -        |
| 0.19 tsp      | Irish Moss (Boil 10.0 mins)                    | Fining | 5  | -         | -        |
| 0.40 oz       | Chinook [13.00 %] - Boil 10.0 min              | Hop    | 6  | 7.7 IBUs  | -        |
| 0.40 oz       | Simcoe [13.00 %] - Boil 10.0 min               | Hop    | 7  | 7.7 IBUs  | -        |
| 0.80 oz       | Cascade [5.50 %] - Boil 5.0 min                | Hop    | 8  | 3.6 IBUs  | -        |
| 0.80 oz       | Simcoe [13.00 %] - Steep/Whirlpool 15.0 min... | Hop    | 9  | 10.5 IBUs | -        |
| 0.8 pkg       | California Ale (White Labs #WLP001) [35.49 ... | Yeast  | 10 | -         | -        |
| 1.52 oz       | Cascade [5.50 %] - Dry Hop 5.0 Days            | Hop    | 11 | 0.0 IBUs  | -        |
| 1.52 oz       | Simcoe [13.00 %] - Dry Hop 5.0 Days            | Hop    | 12 | 0.0 IBUs  | -        |

## Gravity, Alcohol Content and Color

**Est Original Gravity:** 1.066 SG  
**Est Final Gravity:** 1.018 SG  
**Estimated Alcohol by Vol:** 6.5 %  
**Bitterness:** 71.9 IBUs  
**Est Color:** 11.4 SRM

**Measured Original Gravity:** 1.058 SG  
**Measured Final Gravity:** 0.000 SG  
**Actual Alcohol by Vol:** 0.0 %  
**Calories:** 0.0 kcal/12oz

## Mash Profile

**Mash Name:** BIAB, Full Body  
**Sparge Water:** 0.00 gal  
**Sparge Temperature:** 168.1 F  
**Adjust Temp for Equipment:** TRUE  
**Est Mash PH:** 5.62  
**Measured Mash PH:** 0.00

**Total Grain Weight:** 10 lbs 12.6 oz  
**Grain Temperature:** 72.0 F  
**Tun Temperature:** 72.0 F  
**Target Mash PH:** 5.20  
**Mash Acid Addition:** None  
**Sparge Acid Addition:** None

## Mash Steps

|  | Step |  |
|--|------|--|
|--|------|--|

| Name             | Description                      | Temperature | Step Time |
|------------------|----------------------------------|-------------|-----------|
| Saccharification | Add 23.20 qt of water at 164.7 F | 156.0 F     | 60 min    |
| Mash Out         | Heat to 168.0 F over 7 min       | 168.0 F     | 10 min    |

**Sparge:** If steeping, remove grains, and prepare to boil wort

**Mash Notes:** Brew in a bag method where the full boil volume is mashed within the boil vessel and then the grains are withdrawn at the end of the mash. No active sparging is required. This is a full body beer profile.

### Carbonation and Storage

**Carbonation Type:** Keg

**Pressure/Weight:** 12.54 PSI

**Keg/Bottling Temperature:** 45.0 F

**Fermentation:** Ale, Two Stage

**Fermenter:**

**Storage Temperature:** 65.0 F

**Volumes of CO2:** 2.3

**Carbonation Est:** Keg with 12.54 PSI

**Carbonation (from Meas Vol):** Keg with 12.54 PSI

**Age for:** 30.00 days

### Notes

Foundry can't be so high up; too hard to get grain basket on ring insert—almost dropped ring into kettle (had to call Sarah for help)

Pump needs to be below chiller and rotated 90° counterclockwise, so bleed will be parallel to the ground \*above\* the pump.

Probably shouldn't brew on the patio; shit from the balcony can fall into kettle

Need a quick release on the valve on kettle

Tubes need to be just long enough; too much beer lost in the lines.

Use large syringe to prime beer line/pump; pull from bleed valve?

Chiller got wort from 179 to 71 in about 5 minutes—AWESOME

First time using Ss blow-off tube with growler (works great so far)

Left easily a gallon of beer in the Foundry, but didn't realize until I went to clean; I think the valve got clogged

Missed the expected OG by 8 points; should have been 1.066, but only got 1.058—not sure why.

*Created with BeerSmith*