

# 15 Classic American IPA Clone Recipes



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# THE ALCHEMIST'S FOCAL BANGER CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.063 FG = 1.012 IBU = 80 SRM = 5 ABV = 7%

While the recipe for Focal Banger has been known to change over the years, the Citra®/Mosaic® hop combo has been one thing that hasn't changed. Pilsner malt has been known to be part of the grain bill, so feel free to substitute in some for the Pearl malt.

#### Ingredients

12 lbs. (4.3 kg) Thomas Fawcett Pearl malt

1.2 lbs. (0.54 kg) corn sugar (15 min.)

4 mL HopShot™ (60 min.)

1.5 oz. (43 g) Citra® hops (0 min.)

2.5 oz. (71 g) Mosaic® hops (0 min.)

2.5 oz. (71 g) Citra® hops (dry hop)

1.5 oz. (43 g) Mosaic® hops (dry hop)

The Yeast Bay (Vermont Ale) or GigaYeast GY054

(Vermont IPA) or East Coast Yeast ECY29 (North East Ale)

or Omega Yeast Labs (DIPA Ale) yeast

¾ cups corn sugar (if priming)

#### Step by Step

This recipe is designed for homebrewers to achieve 5.5 gallons (21 L) wort in their fermenter on brew day. This will help offset the loss of volume to the heavy hopping rate of this beer.

Build your water profile, starting with either very soft water or RO water. Target a water profile of 250:100 PPM sulfate: chloride. Crush the malt and add to 4 gallons (15 L) strike water to achieve a stable mash temperature at 154 °F (68 °C). Raise to mash out and begin to lauter. Boil for 60 minutes, adding the HopShot™ addition after the wort comes to a boil and the corn sugar with 15 minutes left in the boil. After you turn off the heat, add the final addition of hops, then stir the wort and let settle for 30 minutes with the lid on before cooling to yeast pitching temperature.

Ferment at 68 °F (20 °C). As fermentation nears completion, transfer the beer to a keg and add the dry hops and attach a spunding valve. Let the beer sit on the hops for 3-4 days, then transfer to a serving keg or bottling bucket. Bottle with priming sugar or force carbonate the serving keg to 2.4 volumes  $CO_2$ .

### THE ALCHEMIST'S FOCAL BANGER CLONE

(EXTRACT ONLY)

(5 gallons/19 L, extract only) OG = 1.063 FG = 1.012 IBU = 80 SRM = 5 ABV = 7%

#### Ingredients

6.6 lbs. (3 kg) Maris Otter liquid malt extract

1.2 lbs. (0.54 kg) Pilsen dried malt extract

1.2 lbs. (0.54 kg) corn sugar (15 min.)

4 mL HopShot<sup>™</sup> (60 min.)

1.5 oz. (43 g) Citra® hops (0 min.)

2.5 oz. (71 g) Mosaic® hops (0 min.)

2.5 oz. (71 g) Citra® hops (dry hop)

1.5 oz. (43 g) Mosaic® hops (dry hop)

The Yeast Bay (Vermont Ale) or GigaYeast GY054

(Vermont IPA) or East Coast Yeast ECY29 (North East Ale)

or Omega Yeast Labs (DIPA Ale) yeast

¾ cups corn sugar (if priming)

#### Step by Step

Heat 5 gallons (19 L) soft or RO water up to boil. As soon as the water begins to boil, remove from heat and stir in the liquid and dried malt extracts. Stir until all the extract is dissolved then return the wort to a boil. Boil for 60 minutes, adding the HopShot™ addition after the wort comes to a boil and the corn sugar with 15 minutes left in the boil. After you turn off the heat, add the final addition of hops, then stir the wort and let settle for 30 minutes with the lid on before cooling to yeast pitching temperature. Top off your fermenter to 5.5 gallons (21 L).

Ferment at 68 °F (20 °C). As fermentation nears completion, transfer the beer to a keg, add the dry hops, and attach a spunding valve. Let the beer sit on the hops for 3–4 days, then transfer to a serving keg or bottling bucket. Bottle with priming sugar or force carbonate the serving keg to 2.4 volumes CO<sub>2</sub>.

#### **Tips for Success**

One of the secrets to John Kimmich's success at brewing these beers is making sure to minimize the amount of dissolved oxygen (DO) in the beer. To do the same at home, be cautious when racking. You can also purge your receiving vessel with  ${\rm CO_2}$  before transfer to minimize exposure to oxygen when you're moving the beer from vessel to vessel.

Also, minimize oxygen exposure when you add the dry hops. To do this, try vacuum packing your hops before adding them to your beer, or better yet, vacuum pack them and then gas flush them with  ${\rm CO}_2$ . For more about advanced dry hopping, check out byo.com/story3187.

#### ALESMITH BREWING CO.'S ALESMITH IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.073 FG = 1.014 IBU = 93 SRM = 5 ABV = 8.2%

#### Ingredients

14.66 lbs. (6.6 kg) Gambrinus 2-row pale malt

2 oz. (57 g) crystal malt (15 °L)

2 oz. (57 g) Carapils® malt (6 °L)

2 oz. (57 g) Munich malt (10 °L)

2 oz. (57 g) wheat malt

1 oz. (28 g) honey malt

7 AAU Columbus hops (first wort hop)

(0.5 oz./14 q at 14% alpha acids)

7 AAU Simcoe® hops (first wort hop)

(0.53 oz./15 g at 13% alpha acids)

3.25 AAU Columbus hops (60 min.)

(0.23 oz./6.5 g at 14% alpha acids)

1.33 AAU Amarillo® hops (30 min.)

(0.17 oz./4.8 g at 8% alpha acids)

2.25 AAU Simcoe® hops (15 min.)

(0.17 oz./4.8 g at 13% alpha acids)

2.66 AAU Columbus hops (10 min.)

(0.19 oz./5.4 g at 14% alpha acids)

2 AAU Cascade hops (5 min.)

(0.4 oz./11 g at 5% alpha acids)

5 AAU Cascades hops (1 min.)

(1 oz./28 g at 5% alpha acids)

0.5 oz. (14 g) Columbus hops (dry hop)

0.5 oz. (14 g) Amarillo® hops (dry hop)

0.5 oz. (14 q) Cascade hops (dry hop)

0.25 oz. (7.1 g) Simcoe® hops (dry hop)

0.25 oz. (7.1 g) Chinook hops (dry hop)

1 tsp. Irish moss (15 min.)

White Labs WLP001 (California Ale), Wyeast 1056

(American Ale), or Safale US-05 yeast

¾ cup corn sugar (if priming)

#### Step by Step

Mash at 152 °F (67 °C) for 60 minutes. The first wort hops are to be added to the wort before the boil starts, so add them during the sparge. Boil for 90 minutes, following hop addition schedule. Whirlpool wort and let sit for 15 minutes before you begin cooling. Ferment at 68 °F (20 °C).

# ALESMITH BREWING CO.'S ALESMITH IPA CLONE

(EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.073 FG = 1.014 IBU = 93 SRM = 5 ABV = 8.2%

#### Ingredients

7.25 lbs. (3.3 kg) light dried malt extract

1 lb. (0.45 kg) 2-row pale malt

2 oz. (57 g) crystal malt (15 °L)

2 oz. (57 g) Carapils® malt (6 °L)

2 oz. (57 g) Munich malt (10 °L)

2 oz. (57 g) wheat malt

1 oz. (28 g) honey malt

7 AAU Columbus hops (first wort hop)

(0.5 oz./14 g at 14% alpha acids)

7 AAU Simcoe® hops (first wort hop)

(0.53 oz./15 g at 13% alpha acids)

3.25 AAU Columbus hops (60 min.)

(0.23 oz./6.5 g at 14% alpha acids)

1.33 AAU Amarillo® hops (30 min.)

(0.17 oz./4.8 g at 8% alpha acids)

2.25 AAU Simcoe® hops (15 min.)

(0.17 oz./4.8 g at 13% alpha acids)

2.66 AAU Columbus hops (10 min.)

(0.19 oz./5.4 g at 14% alpha acids)

2 AAU Cascade hops (5 min.)

(0.4 oz./11 q at 5% alpha acids)

5 AAU Cascades hops (1 min.)

(1 oz./28 g at 5% alpha acids)

0.5 oz. (14 g) Columbus hops (dry hop)

0.5 oz. (14 q) Amarillo® hops (dry hop)

0.5 oz. (14 g) Cascade hops (dry hop)

0.25 oz. (7.1 g) Simcoe® hops (dry hop)

0.25 oz. (7.1 g) Chinook hops (dry hop)

1 tsp. Irish moss (15 min.)

White Labs WLP001 (California Ale), Wyeast 1056

(American Ale), or Safale US-05 yeast

3/4 cup corn sugar (if priming)

#### Step by Step

Steep crushed pale malt plus specialty malts in 2 quarts (2 L) of water at 152 °F (67 °C) for 45 minutes. The first wort hops are to be added to the wort before the boil starts, so add them as the wort is heating up to boil. Boil for 90 minutes, following hop addition schedule. Whirlpool wort and let sit for 15 minutes before you begin cooling. Ferment at 68 °F (20 °C).

# ANCHOR BREWING CO.'S LIBERTY ALE CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.059 FG = 1.011 IBU = 48 SRM = 4 ABV = 5.9%

#### Ingredients

12.5 lbs. (5.7 kg) 2-row pale malt
4.1 AAU Cascade pellet hops (60 min.)
(0.5 oz./14 g at 8.2% alpha acids)
6.2 AAU Cascade pellet hops (45 min.)
(0.75 oz./21 g at 8.2% alpha acids)
0.5 oz. (14 g) Cascade pellet hops (0 min.)
1 oz. (28 g) Cascade pellet hops (dry hop)
White Labs WLP051 (California Ale V)
or Wyeast 1272 (American Ale II) yeast
0.3 oz. (8 g) gypsum (optional if using very low mineral water)
½ cup corn sugar (if priming)

#### Step by Step

Mill the grains and mix with 4.7 gallons (17.8 L) of 158 °F (70 °C) strike water and optional gypsum (see ingredients list) to reach a mash temperature of 149 °F (65 °C). Hold this temperature for 60 minutes. Vorlauf until your runnings are clear. Sparge the grains with 2.8 gallons (10.6 L) of 168 °F (75 °C) water and top up with water to obtain 6 gallons (23 L) of 1.049 specific gravity wort. Boil for 60 minutes, adding hops according to the ingredients list.

After the boil, turn off the heat and chill the wort to slightly below fermentation temperature, about 65 °F (18 °C). Aerate the wort with pure oxygen or filtered air and pitch yeast. Ferment at 67 °F (19 °C) for four days. Add the dry hops and raise to 72 °F (22 °C) for three days. Once the beer reaches terminal gravity (approximately seven days total) bottle or keg the beer and carbonate.

# ANCHOR BREWING CO.'S LIBERTY ALE CLONE

(EXTRACT ONLY)

(5 gallons/19 L, extract only) OG = 1.059 FG = 1.011 IBU = 48 SRM = 5 ABV = 5.9%

#### Ingredients

8 lbs. 3 oz. (3.7 kg) golden liquid malt extract 4.1 AAU Cascade pellet hops (60 min.) (0.5 oz./14 g at 8.2% alpha acids) 6.2 AAU Cascade pellet hops (45 min.) (0.75 oz./21 g at 8.2% alpha acids) 0.5 oz. (14 g) Cascade pellet hops (0 min.) 1 oz. (28 g) Cascade pellet hops (dry hop) White Labs WLP051 (California Ale V) or Wyeast 1272 (American Ale II) yeast

0.2 oz. (6 g) gypsum (optional if using very low mineral water) 3/3 cup corn sugar (if priming)

#### Step by Step

Bring 5.4 gallons (20.4 L) of water and optional gypsum (see ingredients list) to boil, turn off the flame, and stir in the liquid malt extract until completely dissolved. Top up with water if necessary to obtain 6 gallons (23 L) of 1.049 specific gravity wort.

Boil for 60 minutes, adding hops according to the ingredients list. After the boil, turn off the heat and chill the wort to slightly below fermentation temperature, about 65 °F (18 °C). Aerate the wort with pure oxygen or filtered air and pitch the yeast.

Ferment at 67 °F (19 °C) for four days. Add the dry hops and raise to 72 °F (22 °C) for three days. Once the beer reaches terminal gravity (approximately seven days total) bottle or keg the beer and carbonate.

#### **Tips for Success:**

Anchor's ales spend three days in open fermentation and the temperatures are allowed to ramp over that time. If you want to do an open fermentation at home, focus on producing extremely sanitary wort, cleaning and sanitizing everything the wort comes in contact with, and pitching a known pure and viable yeast strain. A fermentation vessel such as a bucket can be used, and if you're paranoid about contamination from fruit flies you can stretch some cheesecloth over the top. To replicate Anchor's process you would rack to a closed vessel with an airlock such as a carboy after three to four days and do any dry hopping there.

# BALE BREAKER BREWING CO.'S TOP CUTTER IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.058 FG = 1.008 IBU = 70 SRM = 6 ABV = 6.8%

#### Ingredients

10.75 lbs. (4.9 kg) 2-row pale malt

12 oz. (0.34 kg) Munich malt (8 °L)

4 oz. (0.11 kg) Vienna malt

4 oz. (0.11 kg) Carapils® (dextrin) malt

4 oz. (0.11 kg) caramel malt (40 °L)

4.6 AAU Simcoe® hop pellets (first wort hop)

(0.35 oz./10 g at 13.2% alpha acids)

9.6 AAU Warrior® hop pellets (60 min.)

(0.6 oz./17 g at 16% alpha acids)

6.6 AAU Simcoe® hop pellets (15 min.)

(0.5 oz./14 g at 13.2% alpha acids)

0.75 oz. (21 g) Simcoe® hop pellets (0 min.)

0.75 oz. (21 g) Citra® hop pellets (0 min.)

0.75 oz. (21 g) Mosaic™ hop pellets (0 min.)

1 oz. (28 q) Citra® hop pellets (dry hop)

1 oz. (28 g) Ahtanum<sup>™</sup> hop pellets (dry hop)

½ tsp. Irish moss (30 min.)

½ tsp. yeast nutrient (15 min.)

White Labs WLP001 (California Ale), Wyeast 1056

(American Ale) or Safale US-05 yeast

⅔ cup corn sugar (if priming)

#### Step by Step

Mix all of the crushed grains with 4 gallons (15 L) of 170 °F (77 °C) water to stabilize at 149 °F (65 °C) for 60 minutes. Sparge slowly with 175 °F (79 °C) water. Collect 6 gallons (23 L) of wort runoff to boil 60 minutes. Boil 60 minutes, adding ingredients as per the schedule. Cool the wort to 75 °F (24 °C) and pitch your yeast. Hold at 68 °F (20 °C) until fermentation is complete. Transfer to a carboy, add the dry hops and allow the beer to condition for one week and then bottle or keq.

# BALE BREAKER BREWING CO.'S TOP CUTTER IPA CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.058 FG = 1.008 IBU = 70 SRM = 7 ABV = 6.8%

#### Ingredients

3.3 lbs. (1.5 kg ) Briess light, unhopped, liquid malt extract

2 lbs. (0.9 kg) light, dried malt extract

1.75 lbs. (0.79 kg) two-row pale malt

12 oz. (0.34 kg) Munich malt (8 °L)

4 oz. (0.11 kg) Vienna malt

4 oz. (0.11 kg) Carapils® (dextrin) malt

4 oz. (0.11 kg) caramel malt (40 °L)

4.6 AAU Simcoe® hop pellets (first wort hop)

(0.35 oz./10 g at 13.2% alpha acids)

12 AAU Warrior® hop pellets (60 min.)

(0.75 oz./21 g at 16% alpha acids)

6.6 AAU Simcoe® hop pellets (15 min.)

(0.5 oz./14 g at 13.2% alpha acids)

0.75 oz. (21 g) Simcoe® hop pellets (0 min.)

0.75 oz. (21 g) Citra® hop pellets (0 min.)

0.75 oz. (21 g) Mosaic™ hop pellets (0 min.)

0.7 5 02. (21 g) 1103aic 110p pettets (0 11111

1 oz. (28 g) Citra® hop pellets (dry hop)

1 oz. (28 g) Ahtanum™ hop pellets (dry hop)

½ tsp. Irish moss (30 min.)

½ tsp. yeast nutrient (15 min.)

White Labs WLP001 (California Ale), Wyeast 1056

(American Ale) or Safale US-05 yeast

⅓ cup corn sugar (if primin

#### Step by Step

Steep the crushed grain in 2 gallons (7.6 L) of water at 149 °F (65 °C) for 30 minutes. Remove grains from the wort and rinse with 2 quarts (1.8 L) of hot water. Boil 60 minutes, adding ingredients as per the schedule. When done, add the wort to 2 gallons (7.6 L) of cold water in the sanitized fermenter and top off with cold water up to 5 gallons (19 L). Cool the wort to 75 °F (24 °C) and pitch your yeast. Hold at 68 °F (20 °C) until fermentation is complete. Transfer to a carboy, add the dry hops and allow the beer to condition for one week and then bottle or keq.

# BEAR REPUBLIC BREWING CO.'S RACER 5 CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.070 FG = 1.015 IBU = 75 SRM = 6 ABV = 7.5%

#### Ingredients

11.5 lbs. (5.2 kg) 2-row pale malt
1.67 lbs. (0.76 kg) wheat malt
0.63 lb. (0.28 kg) crystal malt (15 °L)
0.4 lb. (0.19 kg) dextrose (corn sugar)
0.2 lb. (95 g) Carapils® malt
6 AAU Chinook hops (90 min.)
(0.5 oz./14 g at 12% alpha acids)
5 AAU Cascade hops (60 min.)
(1 oz./28 g at 5% alpha acids)
7.5 AAU Cascade hops (0 min.)

(1.5 oz./43 g at 5% alpha acids) 4.5 AAU Centennial hops (0 min.)

(0.5 oz./14 g at 9% alpha acids)

7 AAU Columbus hops (0 min.)

(0.5 oz./14 g at 14% alpha acids)

0.4 oz. (11 g) Centennial hops (dry hop)

0.4 oz. (11 g) Chinook hops (dry hop)

1 oz. (28 g) Cascade hops (dry hop)

1 oz. (28 g) Columbus hops (dry hop)

Wyeast 1272 (American Ale II) or

White Labs WLP051 (California V) yeast

¾ cups corn sugar (if priming)

#### Step by Step

Mash in at 145 °F (63 °C) then ramp temperature to 152 °F (67 °C) for conversion. Mash out to 170 °F (77 °C). Boil for 90 minutes, adding hops at the times indicated in the ingredient list. After the boil is finished, remove from heat and add the final hop addition. Stir the brewpot into a whirlpool and let stand for 30 minutes before chilling. Ferment at 68 °F (20 °C). After primary fermentation is complete, add the dry hops and wait five to seven days before bottling or kegging.

# BEAR REPUBLIC BREWING CO.'S RACER 5 CLONE

(EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.070 FG = 1.015 IBU = 75 SRM = 6 ABV = 7.5%

#### Ingredients

6 lbs. (2.7 kg) dried malt extract 0.33 lbs. (0.15 kg) 2-row pale malt 1.67 lbs. (0.76 kg) wheat malt 0.63 lbs. (0.28 kg) crystal malt (15 °L) 0.4 lbs. (0.19 kg) dextrose (corn sugar) 0.2 lbs. (95 g) Carapils® malt 6 AAU Chinook hops (90 min.) (0.5 oz./14 g at 12% alpha acids) 5 AAU Cascade hops (60 min.) (1 oz./28 g at 5% alpha acids) 7.5 AAU Cascade hops (0 min.) (1.5 oz./43 g at 5% alpha acids) 4.5 AAU Centennial hops (0 min.) (0.5 oz./14 g at 9% alpha acids) 7 AAU Columbus hops (0 min.) (0.5 oz./14 g at 14% alpha acids) 0.4 oz. (11 g) Centennial hops (dry hop) 0.4 oz. (11 g) Chinook hops (dry hop) 1 oz. (28 g) Cascade hops (dry hop) 1 oz. (28 g) Columbus hops (dry hop) Wyeast 1272 (American Ale II) or White Labs WLP051 (California V) yeast

#### Step by Step

¾ cups corn sugar (if priming)

Steep crushed grains in 1 gallon (3.8 L) of water at 152 °F (67 °C) for 45 minutes. Bring grains up to 170 °F (77 °C) then remove the grains and place in a colander. Wash the grains with 1 gallon (3.8 L) hot water. Top off the 5 gallons then boil for 90 minutes, adding hops at the times indicated in the ingredient list. After the boil is finished, remove from heat and add the final hop addition. Stir the brewpot into a whirl-pool and let stand for 30 minutes before chilling. Transfer wort to your fermenter and top off to 5 gallons (19 L). Ferment at 68 °F (20 °C). After primary fermentation is complete, add the dry hops and wait five to seven days before bottling or kegging.

# BELL'S BREWING CO.'S TWO HEARTED ALE CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.064 FG = 1.013 IBU = 56 SRM = 8 ABV = 7%

#### Ingredients

10.5 lbs. (4.8 kg) 2-row pale malt
2 lbs. (0.91 kg) Vienna malt
0.5 lbs. (0.23 kg) crystal malt (40 °L)
0.33 lbs. (0.15 kg) Carapils® malt (6 °L)
10 AAU Centennial hops (45 min.)
 (1 oz./28 g of 10% alpha acids)
10 AAU Centennial hops (30 min.)
 (1 oz./28 g of 10% alpha acids)
0.5 oz. (14 g) Centennial hops (0 min.)
3 oz. (85 g) Centennial hops (dry hop)
½ tsp. Irish moss (15 min.)
Wyeast 1272 (American Ale II), White Labs WLP051
 (California V) or yeast cultured from a bottle of this beer
¾ cups corn sugar (if priming)

#### Step by Step

Mash at 152 °F (67 °C) for 1 hour. Boil wort for 75 minutes, adding Centennial hops at the times indicated in the recipe. Ferment at 70 °C (21 °C). Dry hop for three days in secondary. Bottle or keg as normal.

# BELL'S BREWING CO.'S TWO HEARTED ALE CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.064 FG = 1.013 IBU = 56 SRM = 8 ABV = 7%

#### Ingredients

5 lbs. (2.27 kg) extra light dried malt extract
1 lb. (0.45 kg) 2-row pale malt
2 lbs. (0.9 kg) Vienna malt
0.5 lbs. (0.23 kg) crystal malt (40 °L)
0.33 lbs. (0.15 kg) Carapils® malt (6 °L)
11 AAU Centennial hops (45 min.)
 (1 oz./28 g of 10% alpha acids)
11 AAU Centennial hops (30 min.)
 (1 oz./28 g of 10% alpha acids)
0.5 oz. (14 g) Centennial hops (0 min.)
3 oz. (85 g) Centennial hops (dry hop)
½ tsp. Irish moss (15 min.)
Wyeast 1272 (American Ale II), White Labs WLP051
 (California V) or yeast cultured from a bottle of this beer

#### Step by Step

¾ cups corn sugar (if priming)

Steep crushed grains in 1.2 gallons (4.6 L) of water at 152 °F (67 °C) for 45 minutes. Wash the grains with 1 gallon (3.8 L) hot water. Add the dried malt extract then top off brewpot to 6 gallons (23 L) and bring to boil. Boil wort for 60 minutes, adding Centennial hops at the times indicated in the recipe. Ferment at 70 °C (21 °C). Dry hop for three days in secondary. Bottle or keg as normal

# DOGFISH HEAD BREWING CO.'S 60-MINUTE IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.064 FG = 1.019 IBU = 60 SRM = 6 ABV = 6%

#### Ingredients

13 lbs. (5.9 kg) 2-row pale malt
6.4 oz. (0.18 kg) Thomas Fawcett amber malt (35 °L)
11.2 AAU Warrior® hops (60–35 min.)
(0.7 oz./20 g at 16% alpha acids)
3.6 AAU Simcoe® hops (35–0 min.)
(0.7 oz./20 g at 13% alpha acids)
5.6 AAU Amarillo® hops (35–0 min.)
(0.7 oz./20 g at 8% alpha acids)
0.7 oz. (20 g) Amarillo® hops (0 min.)
1 oz. (28 g) Amarillo® hops (dry hop)
0.5 oz. (14 g) Simcoe® hops (dry hop)
1 tsp. Irish moss (15 min.)
Wyeast 1187 (Ringwood Ale) or White Labs WLP005
(British Ale) yeast (1.5 qt./~1.5 L starter @ SG 1.030)

#### Step by Step

% cup corn sugar (if priming)

Mash at 152 °F (67 °C) for 60 minutes. Boil wort for 60 minutes. Begin hopping wort with a continuous stream of Warrior® hops at a rate of 0.28 oz. (7.9 g) per 10 minutes. Warrior® should run out with 35 minutes left in boil. Refill hopper with Simcoe® and Amarillo® hops and resume hopping until the end of the boil. Add Irish moss with 15 minutes remaining. Add the 0 minute hops after boil and begin cooling. Aerate cooled wort and pitch yeast. Ferment initially at 71 °F (22 °C), but let temperature rise to 74 °F (23 °C) towards the end of fermentation. Warm condition for 3 days (to remove diacetyl), then cool beer and add dry hops, allowing two weeks contact time. Bottle or keg as usual.

### DOGFISH HEAD BREWING CO.'S 60-MINUTE IPA CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.064 FG = 1.019 IBU = 60 SRM = 6 ABV = 6%

#### Ingredients

1.5 lbs. (0.68 kg) 2-row pale malt 6.4 oz. (0.18 kg) Thomas Fawcett amber malt (35 °L) 4 lbs. (1.8 kg) Muntons light dried malt extract 2 lbs. 14 oz. (1.3 kg) Muntons light liquid malt extract (15 min.) 11.2 AAU Warrior® hops (60-35 min.) (0.7 oz./20 g at 16% alpha acids) 3.6 AAU Simcoe® hops (35-0 min.) (0.7 oz./20 g at 13% alpha acids) 5.6 AAU Amarillo® hops (35-0 min.) (0.7 oz./20 g at 8% alpha acids) 0.7 oz. (20 g) Amarillo® hops (0 min.) 1 oz. (28 g) Amarillo® hops (dry hop) 0.5 oz. (14 g) Simcoe® hops (dry hop) 1 tsp. Irish moss (15 min.) Wyeast 1187 (Ringwood Ale) or White Labs WLP005 (British Ale) yeast (1.5 qt./~1.5 L starter @ SG 1.030)

#### Step by Step

√s cup corn sugar (if priming)

Steep crushed malt at 152 °F (67 °C) in 2.25 qts. (2.1 L) of water. This is a partial mash, so follow temperature and volume guidelines closely. After 45 minutes, rinse grains with 1 qt. (~1 L) of 170 °F (77 °C) water. Add water to "grain tea" to make 4 gallons (15 L). To save time, heat ~3.5 gallons/13 L of water during "steep." Stir in the dried malt extract and bring to a boil. During the boil, do not let wort volume drop below 3.5 gallons (13 L). Add boiling water if wort volume dips near this mark. Begin hopping wort with a continuous stream of Warrior® hops at a rate of 0.28 oz. (7.9 g) per 10 minutes. Warrior® should run out with 35 minutes left in boil. Refill hopper with Simcoe® and Amarillo® hops and resume hopping until the end of the boil. With 15 minutes left in the boil, turn off the heat and stir in liquid malt extract and Irish moss. Resume heating once extract is dissolved. After the boil is complete, add 0 minute hops and begin cooling. After chilled wort is transferred to fermenter, add water to make 5 gallons (19 L). Ferment initially at 71 °F (22 °C), but let temperature rise to 74 °F (23 °C) towards the end of fermentation. Warm condition for three days (to remove diacetyl), then cool beer and add dry hops, allowing two weeks contact time. Bottle or keg as usual.

# HARPOON BREWERY'S HARPOON IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.057 FG = 1.013 IBU = 42 SRM = 7 ABV = 5.9%

#### Ingredients

10 lbs. (4.5 kg) 2-row pale malt
1.5 lbs. (0.68 kg) Munich malt (10 °L)
0.5 lbs. (0.23 kg) Briess Victory® malt
7.8 AAU Columbus hops (60 min.)
(0.6 oz./17 g at 13% alpha acids)
5 AAU Cascade hops (10 min.)
(1 oz./28 g at 5% alpha acids)
5 AAU Cascade hops (0 min.)
(1 oz./28 g at 5% alpha acids)
1.5 oz. (43 g) Cascade hops (dry hop)
1 tsp. Irish moss (15 min.)
White Labs WLP007 (Dry English Ale), Wyeast 1098
(British Ale), or Lallemand Nottingham yeast
34 cup corn sugar (if priming)

#### Step by Step

Mash grains together for 60 minutes at 152 °F (67 °C) in 4 gallons (15 L) of mash water. Collect 6.5 gallons (25 L) and boil for 90 minutes. Add hops according to the schedule and Irish moss with 15 minutes left in the boil. When done boiling, let the wort settle for 10 minutes then begin cooling. Aerate wort and pitch yeast. Ferment at 68 °F (20 °C) until complete (7 to 10 days). After fermentation is complete, transfer beer to secondary and add dry hops. Let these hops sit in the beer for about a week to enhance the hop aroma, then separate the hops from the beer and bottle as usual.

### HARPOON BREWERY'S HARPOON IPA CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.057 FG = 1.013 IBU = 42 SRM = 7 ABV = 5.9%

#### Ingredients

2.7 lbs. (1.2 kg) light dried malt extract
3.3 lbs. (1.5 kg) light liquid malt extract (15 min.)
1.5 lb. (0.68 kg) Munich malt (10 °L)
0.5 lb. (0.23 kg) Briess Victory® malt
7.8 AAU Columbus hops (60 min.)
 (0.6 oz./17 g at 13% alpha acids)
5 AAU Cascade hops (10 min.)
 (1 oz./28 g at 5% alpha acids)
5 AAU Cascade hops (0 min.)
 (1 oz./28 g at 5% alpha acids)
1.5 oz. (43 g) Cascade hops (dry hop)
1 tsp. Irish moss (15 min.)
White Labs WLP007 (Dry English Ale), Wyeast 1098
 (British Ale), or Lallemand Nottingham yeast
34 cup corn sugar (if priming)

#### Step by Step

Place crushed malts in a nylon steeping bag and steep in 3 qts. (2.8 L) of water at 152 °F (67 °C) for 30 minutes. Rinse grains with 1.5 qts. (~1.5 L) of water at 170 °F (77 °C). Add water to make 3 gallons (11 L), stir in dried malt extract and bring to a boil. Add hops according to the schedule and Irish moss with 15 minutes left in the boil.

When done boiling, let the wort settle for 10 minutes then begin cooling. Transfer to fermenter and top up to 5 gallons (19 L) with cool water. Aerate wort and pitch yeast. Ferment at 68 °F (20 °C) until complete (7 to 10 days). After fermentation is complete, transfer beer to secondary and add dry hops. Let these hops sit in the beer for about a week to enhance the hop aroma, then separate the hops from the beer and bottle as usual.

#### FIRESTONE WALKER'S UNION JACK CLONE (ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.070 FG = 1.015 IBU = 70 SRM = 7 ABV = 7.5%

#### Ingredients

12 lbs. 5 oz. (5.6 kg) Rahr Standard 2-row malt

1 lb. 6 oz. (0.6 kg) Great Western Munich malt (10 °L)

11 oz. (310 g) Carapils® malt

5 oz. (140 g) UK light crystal malt (38 °L)

11.4 AAU German Magnum hops (60 min.)

(1.04 oz./29 g at 11% alpha acids)

1.9 AAU Cascade hops (30 min.)

(0.4 oz./11 g at 4.5% alpha acids)

3.6 AAU Centennial hops (30 min.)

(0.4 oz./11 g at 8.5% alpha acids)

1.9 AAU Cascade hops (10 min.)

(0.4 oz./11 g at 4.5% alpha acids)

3.6 AAU Centennial hops (10 min.)

(0.4 oz./11 g at 8.5% alpha acids)

1 oz. (28 g) Cascade hops (first dry hop)

1 oz. (28 g) Centennial hops (first dry hop)

0.4 oz. (11 g) Amarillo® hops (second dry hop)

0.4 oz. (11 g) Citra® hops (second dry hop)

0.4 oz. (11 g) Chinook hops (second dry hop)

0.4 oz. (11 g) Simcoe® hops (second dry hop)

3.5 g calcium chloride (if using reverse osmosis water)

3.5 q qypsum (if using reverse osmosis water)

White Labs WLP002 (English Ale) or

Wyeast 1968 (London ESB Ale) yeast

3/4 cup corn sugar (if priming)

#### Step by Step

Mill grains and mix with 5.5 gallons (21 L) of 156 °F (69 °C) strike water and optional brewing salts to reach a mash temperature of 145 °F (63 °C). Hold this temperature for 15 minutes. Raise the temperature to 155 °F (68 °C) and hold for 30 minutes. Raise the temperature to a mash out of 168 °F (75 °C). Vorlauf until your runnings are clear. Sparge the grains with enough 168 °F (75 °C) water to collect 6 gallons (23 L) of 1.058 SG wort. Boil for 60 minutes, adding hops according to the ingredients list. After the boil, turn off the heat and chill the wort to 66 °F (19 °C). Aerate the wort with pure oxygen or filtered air and pitch the yeast. Ferment at 68 °F (20 °C). After 4 days add the first dry hop addition. After 7 days add the second dry hop addition. Once at terminal gravity (~10 days) bottle or keg the beer and carbonate.

# FIRESTONE WALKER'S UNION JACK CLONE

(EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.070 FG = 1.015 IBU = 70 SRM = 7 ABV = 7.5%

#### Ingredients

6 lbs. (2.7 kg) golden liquid malt extract

3.3 lbs. (1.5 kg) Briess Munich liquid malt extract

6 oz. (310 g) Carapils® malt

5 oz. (140 g) UK light crystal malt (38 °L)

11.4 AAU German Magnum hops (60 min.)

(1.04 oz./29 g at 11% alpha acids)

1.9 AAU Cascade hops (30 min.)

(0.4 oz./11 g at 4.5% alpha acids)

3.6 AAU Centennial hops (30 min.)

(0.4 oz./11 g at 8.5% alpha acids)

1.9 AAU Cascade hops (10 min.)

(0.4 oz./11 g at 4.5% alpha acids)

3.6 AAU Centennial hops (10 min.)

(0.4 oz./11 g at 8.5% alpha acids)

1 oz. (28 g) Cascade hops (first dry hop)

1 oz. (28 g) Centennial hops (first dry hop)

0.4 oz. (11 g) Amarillo® hops (second dry hop)

0.4 oz. (11 q) Citra® hops (second dry hop)

0.4 oz. (11 g) Chinook hops (second dry hop)

0.4 oz. (11 g) Simcoe® hops (second dry hop)

3.5 g calcium chloride (if using reverse osmosis water)

3.5 g gypsum (if using reverse osmosis water)

White Labs WLP002 (English Ale) or

Wyeast 1968 (London ESB Ale) yeast

<sup>3</sup>/<sub>4</sub> cup corn sugar (if priming)

#### Step by Step

Place the milled grains in a muslin bag and steep in 5 quarts (4.7 L) of 149 °F (65 °C) water for 15 minutes. Remove the grain and rinse with 1 gallon (3.8 L) of hot water. Add water to reach a volume of 5.4 gallons (20.4 L) and boil. Turn off the heat, add the malt extract and brewing salts, and stir until dissolved. Top up to 6 gallons (23 L) of 1.058 SG wort. Follow remainder of all-grain recipe.

# LAGUNITAS BREWING CO.'S LAGUNITAS IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.061 FG = 1.016 IBU = 67 SRM = 9 ABV = 6.2%

#### Ingredients

9.4 lbs. (4.3 kg) 2-row pale malt

1.3 lbs. (0.59 kg) crystal malt (10 °L)

13 oz. (0.37 kg) wheat malt

13 oz. (0.37 kg) light Munich malt (6 °L)

9 oz. (0.25 kg) crystal malt (60 °L)

8.25 AAU Horizon hops (60 min.)

(0.75 oz./21 g at 11% alpha acids)

4.5 AAU Summit™ hops (60 min.)

(0.25 oz./7 g at 18% alpha acids)

4.5 AAU Willamette hops (30 min.)

(0.9 oz./26 g at 5% alpha acids)

2.4 AAU Centennial hops (30 min.)

(0.25 oz./7 g at 9.5% alpha acids)

7.5 AAU Cascade hops (0 min.)

(1.5 oz./43 g at 5% alpha acids)

1 oz. (28 g) Cascade hops (dry hop)

1 oz. (28 g) Centennial hops (dry hop)

1 tsp. Irish moss (15 min.)

Wyeast 1056 (American Ale), White Labs WLP001

(California Ale), or Safale US-05 yeast

¾ cups corn sugar (if priming)

#### Step by Step

Mash at 160 °F (71 °C). Boil for 90 minutes, adding ingredients as indicated in the ingredient list. After the boil, let the wort sit for 15 minutes before cooling. Ferment at 70 °F (21 °C). When fermentation slows, add dry hops for five to seven days. Bottle or keg as usual.

# LAGUNITAS BREWING CO.'S LAGUNITAS IPA CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.061 FG = 1.016 IBU = 67 SRM = 9 ABV = 6.2%

#### Ingredients

4.5 lbs. (2 kg) light dried malt extract

1 lb. (0.45 kg) 2-row pale malt.

1.3 lbs. (0.59 kg) crystal malt (10 °L)

13 oz. (0.37 kg) wheat malt

13 oz. (0.37 kg) light Munich malt (6 °L)

9 oz. (0.25 kg) crystal malt (60 °L)

8.25 AAU Horizon hops (60 min.)

(0.75 oz./21 q at 11% alpha acids)

4.5 AAU Summit<sup>™</sup> hops (60 min.)

(0.25 oz./7 g at 18% alpha acids)

4.5 AAU Willamette hops (30 min.)

(0.9 oz./26 g at 5% alpha acids)

2.4 AAU Centennial hops (30 min.)

(0.25 oz./7 g at 9.5% alpha acids)

7.5 AAU Cascade hops (0 min.)

(1.5 oz./43 g at 5% alpha acids)

1 oz. (28 g) Cascade hops (dry hop)

1 oz. (28 g) Centennial hops (dry hop)

1 tsp. Irish moss (15 min.)

Wyeast 1056 (American Ale), White Labs WLP001

(California Ale), or Safale US-05 yeast

¾ cups corn sugar (if priming)

#### Step by Step

Steep crushed grains in 1 gallon (3.8 L) of water at 160 °F (71 °C) for 45 minutes. Remove grain bag and rinse with at least 2 gallons (8 L) or hot water over your brew pot. Boil for 60 minutes, adding ingredients as indicated in the ingredient list. After the boil, let the wort sit for 15 minutes before cooling. Top your sanitized fermenter up to 5 gallons (19 L) and ferment at 70 °F (21 °C). When fermentation slows, add dry hops for five to seven days. Bottle or keg as usual.

#### LAWSON'S FINEST LIQUIDS' SUPER SESSION IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.050 FG = 1.017 IBU = 47 SRM = 5 ABV = 4.3%

#### Ingredients

8.6 lbs. (3.9 kg) pale ale malt
1 lb. (0.45 kg) Carapils® (dextrin) malt
6 oz. (170 g) crystal malt (10 °L)
6 oz. (170 g) Munich malt (10 °L)
2.5 AAU Amarillo® hop pellets (60 min.)
(0.25 oz./7 g at 10% alpha acids)
5 oz. (142 g) Amarillo® hop pellets (0 min.)
3 oz. (85 g) Amarillo® hop pellets (dry hop)
½ tsp. Irish moss (30 min.)
Wyeast 1056 (American Ale), White Labs WLP001
(California Ale), Lallemand BRY-97, Mangrove Jack's M44
(US West Coast), or Safale US-05 yeast
¾ cup corn sugar (if priming)

#### Step by Step

This is a single step infusion mash, mashing at 158 °F (70 °C) to create a fuller-bodied beer. Mix all the crushed grains with 3.5 gallons (13 L) of 170 °F (77 °C) water and stabilize the mash at 158 °F (70 °C) for 60 minutes. Raise the mash temperature to 165 °F (74 °C) and sparge with enough 175 °F (79 °C) water to collect approximately 6 gallons (23 L) of wort.

Boil the wort for 60 minutes. Add the first hop addition of Amarillo® at the beginning of the boil primarily as a foam inhibitor. Add the Irish moss for the last 30 minutes. Turn off the burner and remove the pot from the heat source. Now add 5 oz. (142 g) of Amarillo® hops, and stir to mix in. After about three to four minutes, begin using your wort chiller to drop the temperature of the wort to 170 °F (77 °C) and hold for 15 minutes. After that time continue to chill to yeast pitching temperature. This extracts a small amount of hop bitterness, and a large amount of hop flavors.

When you have cooled the wort to about 80 °F (27 °C), you can strain the wort into a fermenter. Aerate the wort and pitch the yeast. Ferment at 68–70 °F (20–21 °C) to help hold the aromatics in the beer. When fermentation is complete, rack the beer off the trub and add the remaining dry hop addition of Amarillo®. Allow the beer to absorb the dry hop flavors for about four days. Bottle or keg as normal.

#### LAWSON'S FINEST LIQUIDS' SUPER SESSION IPA CLONE

(EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.050 FG = 1.017 IBU = 48 SRM = 5 ABV = 4.3%

#### Ingredients

2.1 lbs. (0.95 kg) Briess light dried malt extract

1 lb. (0.45 kg) Carapils® (dextrin) malt
6 oz. (170 g) crystal malt (10 °L)
6 oz. (170 g) Munich malt (10 °L)
2.5 AAU Amarillo® hop pellets (60 min.)
(0.25 oz./7 g at 10% alpha acids)
5 oz. (142 g) Amarillo® hop pellets (0 min.)
3 oz. (85 g) Amarillo® hop pellets (dry hop)
½ tsp. Irish moss (30 min.)
Wyeast 1056 (American Ale), White Labs WLP001
(California Ale), Lallemand BRY-97, Mangrove Jack's M44
(US West Coast), or Safale US-05 yeast

3.3 lbs. (1.5 kg) Briess unhopped light liquid malt extract

#### Step by Step

⅓ cup corn sugar (if priming)

Steep the crushed malts in 2.5 gallons (9.5 L) of water at 155 °F (68 °C) for 30 minutes. Remove the grains from the wort. Add the malt extracts and boil for 60 minutes. Add the first hop addition of Amarillo® at the beginning of the boil primarily as a foam inhibitor. Add the Irish moss for the last 30 minutes. Turn off the burner and remove the pot from the heat source. Now add 5 oz. (142 g) of Amarillo® hops and stir to mix in. After about three to four minutes, begin using your wort chiller to drop the temperature of the wort to 170 °F (77 °C) and hold for 15 minutes. After that time continue to chill to yeast pitching temperature. This extracts a small amount of hop bitterness, and a large amount of hop flavors. When you have cooled your wort to about 80 °F (27 °C), you can strain the wort into your fermenter. Top off to 5 gallons (19 L) then aerate your wort and pitch your yeast. Ferment at 68-70 °F (20-21 °C) to help hold the aromatics in the beer. When fermentation is complete, rack your beer off the trub, and add the remaining dry hop addition of Amarillo® hops, and allow the beer to absorb the dry hop flavors for about four days. Then bottle or keg as you normally would.

# NEW BELGIUM BREWING CO.'S RANGER IPA CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.059 FG = 1.009 IBU = 70 SRM = 7 ABV = 6.5%

#### Ingredients

12 lbs. (5.4 kg) 2-row pale malt
4 oz. (113 g) crystal malt (120 °L)
12 AAU Chinook hops (60 min.)
 (1 oz./28 g at 12% alpha acids)
6.5 AAU Simcoe® hops (30 min.)
 (0.5 oz./14 g at 13% alpha acids)
3.8 AAU Cascade hops (15 min.)
 (0.75 oz./21 g at 5% alpha acids)
0.5 oz. (14 g) Chinook hops (0 min.)
0.5 oz. (14 g) Simcoe® hops (0 min.)
1 oz. (28 g) Cascade hops (0 min.)
2.5 oz. (71 g) Cascade hops (dry hop)
Wyeast 1792 (Fat Tire Ale), Wyeast 1272 (American Ale II),
 or White Labs WLP051 (California Ale V) yeast
34 cup corn sugar (if priming)

#### Step by Step

Mash at 148 °F (64 °C). Boil for 90 minutes, adding hops at times indicated. Cool wort and transfer to fermenter. Ferment at 68 °F (20 °C). Dry hop in secondary or keg for one week and then bottle or keg.

# NEW BELGIUM BREWING CO.'S RANGER IPA CLONE

(EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.059 FG = 1.009 IBU = 70 SRM = 7 ABV = 6.5%

#### Ingredients

4.5 lbs. (2 kg) Briess light dried malt extract 1 lb. (0.45 kg) cane sugar (15 min.) 1 lb. 13 oz. (0.82 kg) pale malt 4 oz. (113 g) crystal malt (120 °L) 12 AAU Chinook hops (60 min.) (1 oz./28 g at 12% alpha acids) 6.5 AAU Simcoe® hops (30 min.) (0.5 oz./14 g at 13% alpha acids) 3.8 AAU Cascade hops (15 min.) (0.75 oz./21 g at 5% alpha acids) 0.5 oz. (14 g) Chinook hops (0 min.) 0.5 oz. (14 g) Simcoe® hops (0 min.) 1 oz. (28 g) Cascade hops (0 min.) 2.5 oz. (71 g) Cascade hops (dry hop) Wyeast 1792 (Fat Tire Ale), Wyeast 1272 (American Ale II), or White Labs WLP051 (California Ale V) yeast

#### Step by Step

3/4 cup corn sugar (if priming)

Steep grains in 3 qts. (2.8 L) of water at 148 °F (64 °C) for 45 minutes. Add water to make 4 gallons (15 L) of wort and bring to a boil. Stir in roughly half of the dried malt extract and boil for 60 minutes, adding hops at times indicated. Add remaining malt extract and cane sugar for final 15 minutes of the boil. Cool wort and transfer to fermenter. Top up to 5 gallons (19 L) with cool water, aerate and pitch yeast. Ferment at 68 °F (20 °C). Dry hop in secondary or keg for one week.

#### SIERRA NEVADA BREWING CO.'S CELEBRATION CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.064 FG = 1.016 IBU = 65 SRM = 12 ABV = 6.8%

#### Ingredients

12.5 lbs. (5.7 kg) 2-row pale malt 15 oz. (0.43 kg) caramel malt (60 °L) 9 AAU Chinook hops (100 min.) (0.75 oz./21 g at 12% alpha acids) 5 AAU Centennial hops (100 min.) (0.5 oz./14 g at 10% alpha acids) 7.5 AAU Cascade hops (10 min.) (1.5 oz./43 g at 5% alpha acids) 0.66 oz. (19 g) Centennial hops (0 min.) 1.33 oz. (38 g) Cascade hops (0 min.) 1.33 oz. (38 g) Cascade hops (dry hop) 0.66 oz. (19 g) Centennial hops (dry hop) Wyeast 1056 (American Ale), White Labs WLP001 (California Ale), or Safale US-05 yeast (1.5 qt./1.5 L yeast starter)

#### Step by Step

1 cup corn sugar (if priming)

Two or three days before brew day, make the yeast starter, aerating the wort thoroughly (preferably with oxygen) before pitching the yeast.

On brew day, mash in at 157.5 °F (69.7 °C) in 17 qts. (16 L) of water. Hold at this temperature for 60 minutes. Raise mash temperature to 170 °F (77 °C), hold for 5 minutes then recirculate until the wort clears. Run off wort and sparge with water hot enough to keep the grain bed around 170 °F (77 °C). Collect 6.75 gallons (25.5 L) of wort. (Check that final runnings do not drop below a specific gravity of 1.010 or the pH climbs above 5.8.) Boil wort for 100 minutes, adding hops at times indicated in the ingredient list. Ferment at 68 °F (20 °C). Dry hop in secondary for five days.

#### SIERRA NEVADA BREWING CO.'S CELEBRATION CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.064 FG = 1.016 IBU = 65 SRM = 12 ABV = 6.8%

#### Ingredients

3 lbs. 1 oz. (1.4 kg) 2-row pale malt 2 lbs. (0.91 kg) light dried malt extract 4 lbs. (1.8 kg) light liquid malt extract 15 oz. (0.43 kg) caramel malt (60 °L) 9 AAU Chinook hops (100 min.) (0.75 oz./21 q at 12% alpha acids) 5 AAU Centennial hops (100 min.) (0.5 oz./14 g at 10% alpha acids) 7.5 AAU Cascade hops (10 min.) (1.5 oz./43 g at 5% alpha acids) 0.66 oz. (19 g) Centennial hops (0 min.) 1.33 oz. (38 g) Cascade hops (0 min.) 1.33 oz. (38 g) Cascade hops (dry hop) 0.66 oz. (19 g) Centennial hops (dry hop) Wyeast 1056 (American Ale), White Labs WLP001 (California Ale), or Safale US-05 yeast (1.5 qt./1.5 L yeast starter) 1 cup corn sugar (if priming)

#### Step by Step

Mash grains at 157.5 °F (69.7 °C) in 5.5 gts. (5.2 L) of water. Hold at this temperature for 45 minutes. Collect 2.25 gallons (8.5 L) of wort. Add water to make at least 3 gallons (11 L) of wort. Stir in dried malt extract and boil wort for 100 minutes, adding hops at times indicated in the ingredient list. Keep some boiling water handy and do not let the boil volume dip below 3 gallons (11 L). With 15 minutes remaining in the boil, remove your brew pot from the flame and add the liquid malt extract, stirring thoroughly to avoid scorching. Return to heat and finish boiling. Once complete, chill wort, transfer to fermenter and top up to 5 gallons (19 L). Aerate wort and pitch yeast. Ferment at 68 °F (20 °C). Dry hop in secondary fermenter for five days.

#### SIERRA NEVADA BREWING CO.'S CELEBRATION CLONE (EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.064 FG = 1.016 IBU = 65 SRM = 12 ABV = 6.8%

#### Ingredients

- 2.5 lbs (1.13 kg) light dried malt extract
- 5 lbs. (2.27 kg) light liquid malt extract (15 min.)
- 15 oz. (0.43 kg) caramel malt (60 °L)
- 9 AAU Chinook hops (100 min.)
- (0.75 oz./21 g at 12% alpha acids) 5 AAU Centennial hops (100 min.)
- (0.5 oz./14 g at 10% alpha acids)
- 7.5 AAU Cascade hops (10 min.) (1.5 oz./43 g at 5% alpha acids)
- 0.66 oz. (19 g) Centennial hops (0 min.)
- 1.33 oz. (38 g) Cascade hops (0 min.)
- 1.33 oz. (38 g) Cascade hops (dry hop)
- 0.66 oz. (19 g) Centennial hops (dry hop)
- Wyeast 1056 (American Ale), White Labs WLP001 (California Ale), or Safale US-05 yeast
- (1.5 qt./1.5 L yeast starter)
  1 cup corn sugar (for priming)

#### Step by Step

Steep grains at 160 °F (71 °C) in 3 qts. (2.9 L) of water. Rinse grains with 2 qts. (2 L) of 170 °F (77 °C) water. Add water to brewpot to make at least 3 gallons (11 L) of wort. Stir in dried malt extract and boil wort for 100 minutes, adding hops at times indicated in the ingredient list. Keep some boiling water handy and do not let the boil volume dip below 3 gallons (11 L). With 15 minutes remaining in the boil, remove your brew pot from the flame and add the liquid malt extract, stirring thoroughly to avoid scorching. Return to heat and finish boiling. Chill wort and transfer to fermenter. Top fermenter up to 5 gallons (19 L). Aerate wort and pitch yeast. Ferment at 68 °F (20 °C). Dry hop in secondary fermenter.

# TREE HOUSE BREWING CO.'S JULIUS CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.061 FG = 1.014 IBU = 75 SRM = 8 ABV = 6.5%

#### Ingredients

11 lbs. (5 kg) UK pale ale malt

1 lb. (0.45 kg) oat malt

5 oz. (142 g) honey malt

5 oz. (142 g) Carapils® malt

5 oz. (142 g) flaked oats

8 oz. (227 g) turbinado sugar (15 min.)

8 mL HopShot™ (60 min.)

2 oz. (57 g) Citra® hops (hop stand)

2 oz. (57 g) Mosaic® hops (hop stand)

1 oz. (28 g) Simcoe® hops (hop stand)

2.5 oz. (71 g) Citra® hops (dry hop)

2 oz. (57 g) Mosaic® hops (dry hop)

1.5 oz. (43 g) Simcoe® hops (dry hop)

Wyeast 1318 (London Ale III) or White Labs WLP022

(Essex Ale) or Wyeast 1335 (British Ale II) yeast

¾ cups corn sugar (if priming)

#### Step by Step

This recipe is designed for homebrewers to achieve 5.5 gallons (21 L) wort in their fermenter on brew day. This will help offset the loss of volume to the heavy hopping rate of this beer.

Build your water profile to achieve a 100:200 PPM sulfate: chloride profile. Crush the malt and add to 4.5 gallons (17 L) strike water to achieve a stable mash temperature at 154 °F (68 °C). After 60 minutes, begin to lauter. Collect 7 gallons (26.5 L) of wort in the kettle. Boil for 60 minutes, adding the hop extract after the wort comes to a boil and the turbinado sugar with 15 minutes left in the boil. After the boil, chill the wort down to 180 °F (82 °C) and then add the hop stand addition. Stir the wort, then let settle for 30 minutes before cooling to yeast pitching temperature. Ferment at 68 °F (20 °C). As the kräusen begins to fall, typically day 4 or 5, add the dry hops and spunding valve. Let the beer sit on the hops for 3 days.

Bottle with priming sugar or keg and force carbonate to 2.4 volumes of  $CO_3$ .

# TREE HOUSE BREWING CO.'S JULIUS CLONE

(PARTIAL MASH)

(5 gallons/19 L, partial mash) OG = 1.061 FG = 1.014 IBU = 75 SRM = 8 ABV = 6.5%

#### Ingredients

6 (2.7 kg) extra light dried malt extract

1 lb. (0.45 kg) oat malt

5 oz. (142 g) honey malt

5 oz. (142 g) Carapils® malt

5 oz. (142 g) flaked oats

8 oz. (227 g) turbinado sugar (15 min.)

8 mL HopShot™ (60 min.)

2 oz. (57 g) Citra® hops (hop stand)

2 oz. (57 g) Mosaic® hops (hop stand)

1 oz. (28 g) Simcoe® hops (hop stand)

2.5 oz. (71 g) Citra® hops (dry hop)

2 oz. (57 g) Mosaic® hops (dry hop)

1.5 oz. (43 g) Simcoe® hops (dry hop)

Wyeast 1318 (London Ale III) or White Labs WLP022

(Essex Ale) or Wyeast 1335 (British Ale II) yeast

34 cups corn sugar (if priming)

#### Step by Step

Place the crushed malt in a muslin bag. Steep the grains in 1 gallon (4 L) water at 154 °F (68 °C) for 45 minutes. Remove the grain bag and wash with 2 qts. (2 L) hot water. Top off the kettle to 5 gallons and heat up to boil. As soon as the water begins to boil, remove from heat and stir in the dried malt extract. Stir until all the extract is dissolved then return the wort to a boil. Boil for 60 minutes, adding the first hop addition just after the wort comes to a boil and a second hop addition with 10 minutes left in the boil. After the boil, chill the wort down to 180 °F (82 °C) and then add the hop stand addition. Stir the wort, then let sit for 30 minutes before cooling to yeast pitching temperature. Top off the fermenter to 5.5 gallons (21 L). Ferment at 68 °F (20 °C). As the kräusen begins to fall, typically day 4 or 5, add the dry hops and spunding valve. Let the beer sit on the hops for 3 days.

Bottle with priming sugar or keg and force carbonate to 2.4 volumes of  $CO_3$ .

# TRILLIUM BREWING CO.'S SLEEPER ST. CLONE

(ALL-GRAIN)

(5 gallons/19 L, all-grain) OG = 1.066 FG = 1.013 IBU = 75 SRM = 5 ABV = 7.2%

Trillium brewers describe this beer on their website as, "Opaque orange-yellow in color with floral aromas of lime zest, grapefruit peel, pine sap, and candied orange."

#### Ingredients

11 lbs. (5 kg) 2-row pale malt

1.5 lbs. (0.68 kg) wheat malt

12 oz. (0.34 kg) dextrine malt

4 oz. (113 g) pale crystal malt (15 °L)

12 oz. (0.34 kg) dextrose sugar

14 AAU Columbus hops (60 min.)

(1 oz./28 g at 14% alpha acids)

14 AAU Columbus hops (10 min.)

(1 oz./28 q at 14% alpha acids)

2.5 oz. (71 g) Columbus hops (hop stand)

5 oz. (142 g) El Dorado™ hops (dry hop)

J UZ. (142 g) Lt Durado Hops (dry Hop

1.5 oz. (43 g) Columbus hops (dry hop)

½ Whirlfloc® tablet (10 min.)

White Labs WLP007 (Dry English Ale) or Wyeast 1098

(British Ale) or Gigayeast GY054 (Vermont IPA) yeast

¾ cups corn sugar (if priming)

#### Step by Step

This recipe is designed for homebrewers to achieve 5.5 gallons (21 L) wort in their fermenter on brew day. This will help offset the loss of volume to the heavy hopping rate of this beer.

Build your water profile, starting with either very soft or RO water. Target a water profile of 200:100 PPM sulfate:chloride. Crush the malt and add to 4 gallons (15 L) strike water to achieve a stable mash temperature at 150 °F (65.5 °C). After 60 minutes, begin to lauter. Boil for 60 minutes, adding the first hop addition after the wort comes to a boil and a second hop addition with 10 minutes left in the boil. After the boil, chill the wort to 180 °F (82 °C) and then add the hop stand addition. Stir the wort, then let settle for 30 minutes before cooling to yeast pitching temperature. Ferment at 68 °F (20 °C). As the kräusen begins to fall, typically day 4 or 5, transfer to a keg with the dry hops and add a spunding valve. Let the beer sit on the hops for 4-5 days, then transfer to a serving keg or bottling bucket. You may want to cold-crash the beer prior to the transfer by dropping the temperatue of the beer to 35 °F (2 °C) for 24 hours.

Bottle with priming sugar or force carbonate the serving keg to 2.4 volumes  $CO_2$ .

# TRILLIUM BREWING CO.'S SLEEPER ST. CLONE

(EXTRACT WITH GRAINS)

(5 gallons/19 L, extract with grains) OG = 1.067 FG = 1.014 IBU = 75 SRM = 5 ABV = 7.2%

#### Ingredients

6.6 lbs. (3 kg) golden liquid malt extract

2 lbs. (0.91 kg) wheat dried malt extract

4 oz. (113 g) dextrin malt

4 oz. (113 g) pale crystal malt (15 °L)

12 oz. (0.34 kg) dextrose sugar

14 AAU Columbus hops (60 min.)

(1 oz./28 g at 14% alpha acids)

14 AAU Columbus hops (10 min.)

(1 oz./28 g at 14% alpha acids)

2.5 oz. (71 g) Columbus hops (hop stand)

5 oz. (142 q) El Dorado™ hops (dry hop)

1.5 oz. (43 g) Columbus hops (dry hop)

½ Whirlfloc® tablet (10 min.)

White Labs WLP007 (Dry English Ale) or Wyeast 1098

(British Ale) or Gigayeast GY054 (Vermont IPA) yeast

¾ cups corn sugar (if priming)

#### Step by Step

Place the crushed malt in a muslin bag. Steep the grains in 6 gallon (23 L) water at 160 °F (71 °C) for 20 minutes. Remove the grain bag and wash with 2 gts. (2 L) hot water. Be sure to remove the wort from heat then stir in the dried and liquid malt extracts. Stir until all the extract is dissolved then return the wort to a boil. Boil for 60 minutes, adding the first hop addition after the wort comes to a boil and a second hop addition with 10 minutes left in the boil. After the boil, chill the wort down to 180 °F (82 °C) and then add the hop stand addition. Stir the wort, then let settle for 30 minutes before cooling to yeast pitching temperature. Top off the fermenter to 5.5 gallons (21 L) then aerate the wort. Ferment at 68 °F (20 °C). As the kräusen begins to fall, typically day 4 or 5, transfer to a keg with the dry hops and add a spunding valve. Let the beer sit on the hops for 4-5 days, then transfer to a serving keg or bottling bucket. You may want to cold-crash the beer prior to the transfer by dropping the temperature of the beer to 35 °F (2 °C) for 24 hours.

Bottle with priming sugar or force carbonate the serving keg to 2.4 volumes  ${\rm CO}_{\gamma}$ .

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