



# BREW CRAFT USA

## *Brewcraft Ultimate Beer Ingredients Kit*

### Scotch Wee Heavy

Historically the beefiest, highest alcohol of ales brewed in Scotland was called “Scotch Ale” or Wee Heavy and was a style of beer unto itself- as opposed to “Scottish ales” which were typically patterned after English ales but brewed with less hops and cooler fermentation. Malt complexity was developed through “kettle caramelization”, and modern brewers replicate that effect by using crystal malts with a fairly heavy hand. High final gravity for residual sweetness and a lot of non-sweet unfermentable carbohydrates layered with smooth, warming alcohol are the reasons for its name! You’ll detect flavors and aromas of raisins, dried apricot, brown sugar, caramel candies, creamy butter, even chocolate-dipped shortbread. Dessert in a glass!

#### *Contents of this Kit*

Brewing Ingredients  
Grain Steeping Bag  
Hop Steeping Bags  
Priming Sugar  
Crown Caps  
Brewing Instruction Sheet  
Bottling Instructions

#### *Specifications of this Beer Style*

*(anticipated)*

Ideal Fermentation  
Temperature= 62F  
OG= 1.089 / FG= 1.028  
IBU's= 21/ ABV= 8.1%  
Color= 21 SRM  
Yield= 5 gallons

#### *List of Ingredients*

##### *Fermentables:*

6 lbs Briess CBW Brewers Gold Dry Malt Extract  
2 lbs Briess CBW Amber Dry Malt Extract

##### *Specialty Grains:*

.5 lb Rolled Oats  
.5 lb Vienna Malt  
.5 lb Crystal Malt 120L  
.5 lb Crystal Malt 40L  
.25 lb Chocolate Malt  
.25 lb Cara Munich 40L

##### *Bittering Hops:*

1 oz Imp. Kent Goldings Hops

##### *Flavor Hops:*

1 oz Domestic Willamette Hops

##### *Aroma Hops:*

None

##### *Yeast:*

2 packets Danstar Windsor Yeast

#### *Advanced Procedures for Best Results with this Kit*

- *Hybrid Ale/Lager Fermentation*
- *“Crashing” Yeast*
- *Use of Secondary Fermenter*
- *Extended Aging*

1. *Double-pitch yeast (2 packets), ferment at 62-64°F then rack to secondary fermenter (see #2 below) at 7 days after brewing.*

2. *Rack this beer to a Secondary Fermenter such as a glass or PET carboy, leaving behind the sediment on the bottom of your primary fermenter after the first week of fermentation.*

3. *Drop temperature to 42-48°F for 4-6 more weeks (“crashing” yeast and lagering). This will nearly arrest fermentation and will also cause some diacetyl formation. This is the only style of beer where diacetyl at low-moderate levels is considered acceptable.*

4. *Proceed with bottling your beer. Age for 3-6 months or up to 1 year for best flavor development.*



# Brewing a Brewcraft Premium or Ultimate Beer

*Experience Outstanding Beer™ with Brewcraft!*

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These instructions are a basic set of guidelines for making beer from this kit and assume that it is the first beer you have ever brewed. Many more advanced procedures are possible and will ultimately help you make even better beer, should you choose to learn them. For now however, if you have never made beer before you should follow these instructions to the letter to get the best results. If you have more experience, feel free to apply your knowledge to the process of brewing this kit. We advise you to read through these instructions from start to finish before you begin brewing to be sure you understand the process.

***Please see the supplemental Beer Style Specifics sheet included in your kit for special instructions, a listing of ingredients, expected original and final gravities, flavor notes and other useful information!***

## Equipment You Will Need on the Day You Brew

- ✓ **20 qt. Stock pot** (no lid needed)
- ✓ **Fermenter\*** (6-gallon plastic pail fermenter and a lid with a hole for rubber stopper/airlock apparatus) with a mark to indicate 5 gallons volume
- ✓ **Rubber stopper or grommet\*** sized to fit the hole in the fermenter lid with hole to fit your airlock
- ✓ **Airlock\***
- ✓ **Hydrometer\*** and sample jar
- ✓ **Bottling/Transfer 6-gallon pail\***
- ✓ **No-rinse sanitizer\***
- ✓ **Distilled or filtered water**, about 3 gallons
- ✓ **Grain Steeping Bag and Hop Steeping Bags**, included with your kit
- ✓ **Cable/zip-ties**, to close your steeping bags
- ✓ **Heat-proof spoon\***
- ✓ **Thermometer**

\*Such as is provided in a ***Brewcraft Starter Brewery Equipment Kit***

## Process checklist *Use this timeline/checklist to track and record the start point of all your brewing steps*

- |  |   |
|--|---|
| ___ (time) __:___ Clean and Sanitize Equipment | ___ (time) __:___ Add Flavor Hops and/or Spices       |
| ___ (time) __:___ Steep your Grain             | ___ (time) __:___ Boil 10-15 Minutes                  |
| ___ (time) __:___ Remove the Grain             | ___ (time) __:___ Turn off Boil                       |
| ___ (time) __:___ Stir in DME                  | ___ (time) __:___ Add Aroma Hops                      |
| ___ (time) __:___ Boil 10-15 Minutes           | ___ (time) __:___ 10 Minute Rest                      |
| ___ (time) __:___ Add Bittering Hops           | ___ (time) __:___ Transfer Sterile Wort to Fermenter  |
| ___ (time) __:___ Boil 45 Minutes              | ___ (time) __:___ Check Temperature, Specific Gravity |
| ___ (time) __:___ Add Remaining Fermentables   | ___ (time) __:___ Add Yeast                           |

## Getting Started/Set Up *Time to complete: 15 minutes*

1. Wash and rinse well all your equipment.
2. Mix up 1-2 gallons of no-rinse sanitizer solution, following the manufacturer's instructions, in your fermenter. Put your spoon, thermometer, airlock and stopper, and hydrometer and jar into the solution to soak.

## Steeping Your Grain *Time to complete: 1hour, approximately*

3. Run 3 gallons of tap water into your stock pot, place on a large burner on your stove. Place the Specialty Grain that came with your kit into the Grain Steeping Bag, zip-tie it closed. Place it in the water. Turn on the heat to medium-high.
4. Bring the water with the grain in it slowly up to 160degF. Once it has reached this temperature, turn off the burner and allow the grain to steep for about 10 minutes. Then remove the grain by lifting out the grain bag (allow most of the water to drip back into the stock pot- but don't squeeze).
5. Stir in the largest package of the dry malt extract (DME) that came with your kit, mixing it into the water completely. Your kit may come with 2 or more packages of DME, or it may have a jar of liquid malt extract (LME), honey or other sugar/fermentables and also Priming Sugar. Save the additional packages of DME, the jar of LME, and/or other fermentables and Priming Sugar for later in the brewing process (step 7).

## Boiling Your Wort *Time to complete: 75 minutes, approximately*

6. Bring the contents (now called wort) to a boil, stirring occasionally. **BE CAREFUL, YOUR WORT WILL FOAM UP AND MAY BOIL OVER AT THIS POINT.** Be prepared to quickly turn off the heat and possibly add a splash of cold tap water to calm the boil. Once it has foamed up near the beginning of the boiling process, it should not foam up again. Place the Bittering Hops that came with your kit in one of the provided Hop Steeping Bags, tie shut, and add to the wort. Continue to boil for 45 minutes on med-high heat.
7. If your kit came with Flavor Hops, place them in a Hop Steeping Bag and add now. Slowly add the 2<sup>nd</sup>, 3<sup>rd</sup>, 4<sup>th</sup> packages of DME or the jar of LME now (if your kit came with those) stirring for at least 1 full minute to mix thoroughly and avoid scorching any un-dissolved extract on the bottom of the stock pot. Boil for 10-15 minutes longer.

8. If your kit came with Flavor Hops, place them in a Hop Steeping Bag and add now. If your kit came with Spices, place them in a Hop Steeping Bag and add now. Turn off the burner, your wort has now boiled for about 1 hour.
9. If your kit came with Aroma Hops, place them in a Hop Steeping Bag and add to the wort now. Allow to rest for about 10 minutes while you complete the following steps. Do not cover.  
*(Note: Your wort is now very close to sterile and you must try to keep it sterile. Anything that your wort comes in contact with must be previously soaked for 1 minute in your no-rinse sanitizer solution. Clean hands are essential and food-handlers gloves are also useful from this point forward.)*
10. Transfer all the equipment from your fermenter to your bottling pail. Put the lid on the fermenter and shake gently to be sure the solution contacts all surfaces inside. Take off the lid, and set it aside without allowing the sanitized inner surface to become contaminated. Pour the solution into the bottling pail.

#### Cooling Your Wort/ Transferring to Your Fermenter *Time to complete: 10 minutes*

11. Pour 2 gallons of distilled or filtered water into your fermenter. Carefully remove the hop bags from your wort and discard. Very carefully, pour your wort into the fermenter, mixing it with the water. Add more water to fill the fermenter up to the 5 gallon mark if necessary.
12. Using your sanitized thermometer, check the temperature of your wort. It must be below 80degF before you add your yeast. Further chilling of your wort may be necessary by placing the fermenter in a sink with ice water.
13. Carefully take a sample of the wort using your sanitized hydrometer jar. Allow this to cool to room temperature, and then check the specific gravity, aka original gravity (OG) of your wort with the hydrometer. Write down this number (between 1.030 and 1.100). Discard the sample wort, do not return to the fermenter.
14. Once your wort is below 80degF add yeast by tearing open the package and sprinkling it across the surface. Snap the lid tightly on the fermenter, and put the stopper in the hole in the lid. Fill the airlock  $\frac{1}{2}$  full with sanitizer solution and insert in the stopper. Once yeast is added, it is no longer called wort- it is now called beer. Put the fermenter in a dark, temperature-stable place like your basement or a closet.  
*(Please see your kit's **Beer Style Specifics** sheet for fermentation temperature and other instructions.)*

#### Monitoring Fermentation

15. Your beer is in the "lag phase" now and it will appear nothing is happening for 1 or 2 days. Don't worry! Soon your yeast will get started turning sugars into alcohol and CO<sub>2</sub>, plus other flavor and aroma compounds like esters, phenols and sulfur-based aromatics. Keep the lid on tight- resist the temptation to open and check it frequently.
16. Your beer will next go through "primary fermentation" characterized by rapid release of CO<sub>2</sub> and much foaming on the surface of the wort. This will last for about 3 days. Then comes "secondary fermentation" characterized by much slower release of CO<sub>2</sub> and a noticeable change to the appearance of your beer- it will begin to turn clear and the foam on top will be gone.

#### Your Finished Beer

17. After about 10-20 days your beer will be fully fermented. Higher gravity beers (1.065-1.100 OG) will require longer secondary fermentation than lighter beers (1.032-1.064 OG). Bubbling in the airlock will slow down to 0-1 bubble per 5 minutes. Carefully check the specific gravity with the sanitized hydrometer. The difference between the original gravity (OG) and the final gravity (FG) will tell you the approximate alcoholic strength of your beer. Your beer will not get any stronger now; no matter how long you "age" it, fermentation is done.  
The alcoholic strength of your beer will be about 1% alcohol per .0075 of gravity drop. For example, a beer with OG= 1.060 (-) FG= 1.010 (=) gravity drop of .05/.0075= 6.7% ABV.  
Fill in your data here: OG \_\_\_\_\_ (-) FG \_\_\_\_\_ (/) .0075= \_\_\_\_\_ % (approx) alcohol by volume.

#### Carbonating and Packaging Your Beer

Your beer is flat (un-carbonated) and the yeast has used up all the fermentable sugars now. To make your beer ready to drink, you will need to carbonate and package it by one of several methods. One method is to prime your beer with corn sugar or malt extract and bottle it. Another is to transfer your beer into a keg and force-carbonate. Your local home brew shop can help you decide which of these processes is right for you. For your convenience we've included a packet of priming sugar, adequate to carbonate the beer you've made from this kit and a separate set of instructions, "**Bottling your Brewcraft Premium or Ultimate Beer**".

#### Advancing Your Knowledge and Skills- Brewing Better Beer

Making great beer can be as simple as you have just experienced, or as complex as you want to make it. We strongly recommend to advance your hobby you should purchase one of the many good books on home brewing. You will learn many small tips and more complex procedures that will help you take your beer to even higher levels of greatness. Or just keep brewing great beer simply from Brewcraft Premium and Ultimate Beer Ingredient Kits!



## Bottling your Brewcraft Premium or Ultimate Beer

*Experience Outstanding Beer™ with Brewcraft!*

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These instructions are a basic set of guidelines for bottling your fully fermented Brewcraft Premium or Ultimate Beer. Bottle your beer about 14-21 days after brewing or after final gravity is reached and there is no further sign of fermentation. You will be adding sugar to the beer in the form of Priming Sugar, and the small amount of yeast still remaining in the beer will re-ferment in the bottle, creating just the right amount of CO<sub>2</sub> (carbonation).

### Equipment You Will Need on the Day You Bottle

- |   |   |
|---|---|
| ✓ Fermenter* with 5 gallons of fermented beer | ✓ Bottle Brush*                               |
| ✓ Bottling/Transfer 6-gallon pail*            | ✓ Hand Capper*                                |
| ✓ No-rinse sanitizer *                        | ✓ Disposable food-handler's gloves (optional) |
| ✓ Racking Cane and Siphon Assembly*           | ✓ Plastic or glass bowl                       |
| ✓ Bottle Filler*                              | ✓ 1-2 qt sauce pan                            |

\*Such as is provided in a *Brewcraft Starter Brewery Equipment Kit*

### Process checklist *Use this checklist to track and record the all your bottling steps*      Bottling Date: \_\_\_/\_\_\_/\_\_\_\_\_

- |  |  |
|--|--|
| <input type="checkbox"/> Clean and Sanitize Equipment, Bottles, Caps | <input type="checkbox"/> Fill and Cap your Bottles                       |
| <input type="checkbox"/> Boil your Priming Sugar                     | <input type="checkbox"/> Rinse and Store your Bottles at Room Temp until |
| <input type="checkbox"/> Transfer (Rack) Beer to Bottling Pail       | ___/___/_____ <b>Chill and Drink!</b>                                    |

### Getting Started/Set Up *Time to complete: 45-60 minutes*

1. Wash and rinse well all your equipment and your bottles and caps. Use the bottle brush to clean the bottles.
2. Mix up 1-2 gallons of no-rinse sanitizer solution in your bottling/transfer 6-gallon pail following the manufacturer's instructions. Put your Racking Cane and Siphon Assembly, bottle filler and caps into the solution to soak.
3. Sanitize your bottles: dip each bottle into the sanitizer solution, filling the bottle part-way. Invert the bottle and pour out the solution (back into the pail.) Line up your sanitized bottles on your counter or work table. This is a no-rinse sanitizer, so it is not necessary to drip-dry or rinse away the solution with water. Contact time to sanitize is about 1 minute.

### Transferring Your Beer *Also known as "racking" your beer- Time to complete: 30 minutes, approximately*

4. Pour about 1 qt of your sanitizer solution into a bowl; discard the rest. Place the caps into the bowl with the sanitizer.
5. Pour the Priming Sugar from your beer kit into the saucepan, add 2 cups of water and boil for 5 minutes. Allow to cool for a few minutes and pour into the sanitized Bottling/Transfer 6-gallon pail.
6. Place your fermenter with beer in it on a kitchen counter and place the sanitized pail on the floor directly beneath it. Use the Racking Cane/Siphon Assembly to transfer the beer from the fermenter to the pail without splashing. Take care NOT TO SIPHON THE YEAST SLURRY/SEDIMENT FROM THE BOTTOM OF THE FERMENTER. There is plenty of yeast in the beer (even if it looks clear) to carbonate your beer in the bottles.
7. Remove the Siphon Assembly from the fermenter when all the beer is transferred, and place both ends in the beer in the lower pail. Set the fermenter with the remaining yeast sediment aside; discard the yeast sediment and clean your fermenter later. Lift the pail with the beer onto the counter where the fermenter was previously.

### Filling and Capping your Bottles *You may want to recruit a helper for this part- Time to complete: 45 minutes, approximately*

8. Attach the Bottle Filler to the tube/outlet end of the Siphon Assembly. The Bottle Filler is designed so that no beer will flow until you touch it to the bottom inside of the bottle. Prime the siphon.
9. Begin filling bottles by inserting the Bottle Filler all the way to the bottom. As each bottle is filled to the top, lift out the Bottle Filler and start filling the next bottle. This is where a helper will be very useful! As you fill your bottles, your helper- wearing food handler's gloves, if desired- can place the caps on the bottles, and crimp down the caps with the Hand Capper. Continue until all of your beer is bottled.

### Finishing Up

10. Clean up your equipment and dry for storage. Rinse your bottles and replace them in the boxes they came in.
11. Put your bottled beer in a warm (68-70degF), dark place for about 2 weeks. This will allow the yeast to metabolize the sugar and create CO<sub>2</sub> to carbonate your beer. Keep away from UV light to preserve the quality and flavor of your beer.
12. After 2 weeks, move your beer to a cool or cold storage area for longer term storage; or chill for drinking. It is now ready to drink, but may continue to improve over time. Mild and medium strength beers and any hoppy beers are best if drunk while fresh- from 3 to 12 weeks after bottling. Stronger or very dark beers are sometimes at their best after 12-20 weeks or even longer. Lagers are best if not bottled until 4 weeks after brewing, and allowing to rest for another 4-6 weeks in the bottle.

*Cheers, and Happy Brewing and Drinking! All contents copyright of Brewcraft USA, 2010*