

Steinbart Beer Kits

General Instructions & Recommendations

503.232.8793 fhsteinbart.com

DESCRIPTION

The goal of the beer kit you purchased from us is simple; make brewing your own beer easier than ever! Please read through these general instructions to familiarize yourself with the brewing process and then feel confident diving into the recipe for the kit you selected. Happy brewing!

EQUIPMENT LIST (STUFF YOU LIKELY ALREADY HAVE)

- Stove
- 5-8GL Stock Pot or Kettle
(5GL minimum size—see tip about partial boil)
- Cooking Spoon
- Strainer
- Measuring Cup

EQUIPMENT LIST (HOMEBREW GEAR)

- 6-8 Gallon Fermentation Vessel
(food grade bucket with tight lid works well)
- Airlock with Stopper
- Sanitizing Agent
- Non scented cleaner (PBW, OxyClean)
- Thermometer
- Hydrometer/Jar

EQUIPMENT LIST (OPTIONAL GEAR)

- Carboy and Accessories
- Bottle/Carboy Washer
- Funnel
- Wort Chiller

BOTTLING EQUIPMENT

- Bottling Bucket
- Bottle Filler
- Bottle Capper
- Bottling Brush
- Racking Cane
- Length of Vinyl Tubing
- Bottles & Caps

CLEANING & SANITIZING (DON'T SKIP THIS STEP!!)

Beer is created when yeast converts sugar into alcohol and CO₂. Thus, the whole purpose of brewing is to create the perfect food for microorganisms. So the very thing we make to feed to our commercial yeast is also very attractive to other food based organisms, such as the bacteria that creates vinegar or yogurt. That is where sanitation comes into play.

To make sure your yeast has the upper hand, you need

to clean and sanitize everything that will come in contact with the beer AFTER the boil.

****TIP**** PRE-BOIL/BOIL is called *the hot side***
POST-BOIL/FERMENT is called *the cold side***

Before each item is used, it should first be cleaned of all visible soil or residue and then sanitized. Clean with hot water and an unscented detergent. The following things should be sanitized.

ON BREWING DAY SANITIZE THE FOLLOWING

- Fermenter, lid, airlock & stopper
- Strainer
- Thermometer
- Yeast Package
- Funnel (if applicable)

ON BOTTLING DAY SANITIZE THE FOLLOWING

- Bottling Bucket
- Racking Cane & Transfer Tubing
- Bottle Filler
- Bottles and bottle caps
- Any other object that contacts the beer

HOP SCHEDULE

A standard hop schedule tells you when and the quantity of hops to add to the kettle throughout the one hour boiling time.

- Hops added “@ 60 min.” are boiled for the entire hour, and hops added “@ 15 min.” are added when 15 minutes remains in the boil.
- Hops added “@ 0 min.” are added after boil has ended and the heat has been turned off. They are then steeped for 10-15 min. prior to chilling the wort.
- Hops added “@ dry-hop” are added post primary fermentation and commonly added into a secondary fermentation vessel. Dry hopping typically is done from 5-7 days at which point they are either removed from the fermented beer or the beer is racked off to a packaging vessel.

****TIP**** F.H. Steinbart’s suggested best practice for using hop steeping bags is to use up to 1 oz. of hop pellets per steeping bag and tying a knot at the top, allowing as much room as possible for the hops to expand inside the bag.

FULL VS PARTIAL BOIL

It is possible to do a partial wort boil using a lesser amount of water when boiling the wort and then adding the remaining water at the end when filling the fermentation vessel. The trade-off is that the beer will likely taste sweeter and the characteristics of the hops will be different from the intended recipe. For full hop utilization and efficiency we recommend boiling the wort in the full 5 to 6 gallons of water.

PRIMARY FERMENTATION

You will begin to see activity in the fermenter within 24 hours. A foamy cap will develop on the top of the beer and bubbles will escape through the airlock. Over the next several days the activity will begin to slow down. Primary fermentation typically lasts one week. Temperature control is important when fermenting beer, do your best to keep your fermentation vessels at a constant temperature.

SECONDARY FERMENTATION (if recipe requires it)

After primary fermentation completes, usually 5-7 days.

1. Add your ingredient additions (fruit, honey, etc.) to a smaller secondary vessel and rack beer onto it. It is important to minimize headspace at this point to reduce oxygenation of the beer. Oxygen causes off-flavors in beers over time.
2. Seal the fermenter with a bung and airlock. Fermentation will restart briefly due to the sugars in the puree.
3. Once this second fermentation has slowed, 5-7 days generally, add the dry-hops and leave for another 5-7 days.

FRUIT ADDITIONS

Fruit additions are best added after primary fermentation has slowed/finished (5-7 days). ½ -1 lb. per gallon is a good rule of thumb when deciding how much to add. Also consider the strength of the fruit flavor being added, such as berries vs citrus fruit. Berries are generally milder than citrus fruit flavors which tend to have a higher level of acids., too much of which would produce very sharp and tart flavors that may overpower the other flavors of your beer.

If you plan on using fresh fruit we recommend freezing them for 24 hours prior to adding to your fermenter which will kill any bacteria or wild yeasts that may be on the fruit skins. Next, frozen and/or canned (unsweetened) fruit works quite well due to the processing of the fruit which reduces the likelihood of contamination from wild yeast and bacteria in the fruit. Note: when fruit is added fermentation activity will start back up due to the sugars in the fruit therefore, wait for

it to slow (5-7 days) before racking to secondary and adding your dry-hops.

DRY-HOPPING

Dry hopping is best done in secondary fermentation. Rack the beer into a sanitized carboy, being careful to leave behind any sediment (a wide-mouth carboy is recommended for dry-hopped and fruited beers). Before you begin dry hopping, think about how long you want the beer in secondary, what date do you plan to bottle or keg on? This will inform when you add the dry hops. 5-7 days of totally dry hopping is standard so schedule accordingly.

You can add the hops into the fermenter one of two ways. You can simply toss them in loose and let them float around and really mix in with the beer. No need to sanitize them as hops are naturally anti-microbial. They will mostly settle out to the bottom of the fermenter and generally won't leave much plant matter behind in your finished beer. The second option is to place your hop pellets or cones into a hop steeping bag to keep them more contained, which does make clean up a bit easier. Either way you choose, once the hops are in the vessel simply place fermenter in a location where you can hold the temperature at 70°F (or as close as possible to maximize dry-hop extraction and allow the yeast to finish).

BOTTLING AND BEYOND

Fermentation is finished when the specific gravity (SG) is +/- 2-3 points of the stated FG on the recipe, but timing at this stage is flexible. Record this number as your finishing gravity (FG). When you are ready to bottle your beer, make a simple syrup by combining 4 oz. of priming sugar in a pint of water on the stove. Bring to a boil and simmer for 15 min. Let this cool to room temperature. Sanitize your bottling equipment; bottles, auto-siphon, tubing, bottle filler, and bottle caps. Add the cooled priming sugar solution into the bottling bucket. Siphon your beer into the bottling bucket to mix thoroughly with the sugar. Then siphon the beer into your bottles using the bottle filler and secure the caps. Your beer will be ready to drink after conditioning for two weeks at room temperature (70-74°F is best). Once conditioning is complete place bottles in cool place and/or refrigerate. After 24-48 hours the CO2 should now be in solution and your beer is ready to drink. And don't forget to relax, you are enjoying a homebrew!

If you have any questions about these instructions or the included recipe please call us at (800) 638-2897 or email info@fhsteinbart.com

Pale Ale

American Pale Ale



READING & UNDERSTANDING THE RECIPE

DESCRIPTION: A brief introduction to the amazing beer you, yes YOU are going to make!

THE NUMBERS:

- ABV is the volume of alcohol in your beer
- SRM is the color of your beer. (1 is straw; 40 is black)
- IBU is the amount of bittering in your beer
- OG is the amount of sugars your wort contains
- FG is the amount of sugars left after fermentation

*****TIP***** You can use the OG reading and FG reading you take with your hydrometer to determine the actual ABV of your finished beer. Use an online calculator to convert the numbers.

FERMENTABLES: This is the heart of the recipe. Malt is the backbone of all beers. Extract kits such as this convert the base malt of a beer recipe from grains to liquid or dry malt extract. This extract is simply wort that has been created with a specific base malt and is concentrated or dried. Other fermentables include simple sugars that can be completely fermented by the yeast. This simply adds more alcohol to your final ABV.

STEEPING GRAINS: These are the specialty grains of a recipe. They provide color and additional flavor and aroma profiles to the final beer. When brewing an extract kit such as this one, you simply steep them in hot water, like tea bags, before you add the extract to your kettle.

HOPS: Hops are utilized in beer brewing for their bittering ability, which helps balance out the naturally sweet flavors of malt. They also add flavor and aroma as well as being a natural preservative.

YEAST: *Dry yeast* is provided with many of these kits. When you are ready to pitch, sanitize the yeast packet and scissors (or your hands) and sprinkle the dry yeast into the fermenter. No need to re-hydrate; no need to mix. Sprinkle it in and let it do its thing!

YEAST: *Liquid yeast* is included in many of our collaboration and deluxe kits and does not need to be brought to room temp before pitching. Remove from fridge when ready to pitch, sanitize the bag and the scissors (or your hands), open and pitch into the fermenter.

OTHER: Here we will list the additional ingredients and items included in your kit. Details of usage of these items will be found in the recipe.

DESCRIPTION

An American interpretation of a classic English-style., characterized by floral, fruity, citrus-like, piney, resinous, or sulfur-like American-variety hop character, producing medium to medium-high hop bitterness, flavor and aroma. American-style pale ales have medium body and low to medium maltiness that may include low caramel malt character.

ABV 5.0% | SRM 8 | IBU 30 | OG 1.052 | FG 1.012

FERMENTABLES

7 Lb Light Liquid Malt Extract (LME)

STEEPING GRAINS

- 12 oz. Victory malt
- 8 oz. Munich malt
- 8 oz. White Wheat malt

HOP SCHEDULE

- .5 oz. Columbus pellet hops @ 60 min.
- .5 oz. Cascade pellet hops @ 15 min.
- .5 oz. Centennial pellet hops @ 15 min.
- .5 oz. Cascade pellet hops @ 0 min.
- .5 oz. Centennial pellet hops @ 0 min.

YEAST

Safale US-05 dry yeast (Dry)

OTHER

- 1 Grain steeping bag
- 3 Hop steeping bags
- 1 Whirlfloc tablet (optional kettle finings)
- 4 oz. Dextrose (corn sugar) priming sugar for

ON BREW DAY

1. Fill your brew kettle with 1.5 gallons of water and heat to 155°F (+/- 5°F is acceptable). Remove kettle from heat source once desired temperature is reached.
2. Steep crushed grains in steeping bag for 20-30 min. while agitating the grain bag to ensure all the grains are fully soaked and immersed in the water.
3. After 20-30 min. remove the grains, allow them

- to drain and optionally rinse with an additional 1-2 quarts of hot water.
- You may now discard the grains and grain steeping bag.
 - Top up kettle with additional hot water, up to the max volume of your kettle less 1 – 1.5 gallons to allow for boil up space and ensure against a boil over. 6.5 gallons max.
 - Add the LME and stir to dissolve, ensuring that all is incorporated into the water and no clumps are stuck to the bottom of the kettle (these can scorch and adversely affect the flavor of the beer). The liquid is now called “wort”.
 - Bring liquid to a roiling boil, watching carefully for boil overs. You can turn down the heat to combat boil overs or spray with a water bottle to reduce surface tension. Never cover your kettle when boiling.
 - Once boil has begun, start a timer for 60 minutes.
 - Follow the HOP SCHEDULE provided.
 - At 15 min left in the boil add the Whirfloc tablet.
 - At the end of the 60 min. boil, remove from the heat source. When using “flame-out” hops, add them now and allow to steep 10-20 minutes.
 - Chill wort to under 100°F as fast as possible and as close to 65°F as possible (If you do not have a wort chiller, set the kettle in an ice bath in your sink). Stir as it chills and keep the lid off.
 - While the wort is chilling, sanitize fermenting equipment, carboy, stopper, airlock, funnel, etc.
 - Pour chilled wort into fermenter (top up with clean, sterile water to 5 gallon volume if using the partial process). Ensure it is all thoroughly mixed and pull off a sample for your hydrometer reading.
 - Aerate wort by putting a stopper in the carboy and rocking it back and forth for several minutes.
 - Pitch your yeast when the wort is at appropriate temperature (65°F). Fill airlock with water or sanitizer to the fill line and seal fermenter.
 - Take a specific gravity reading using a tripe scale hydrometer. The reading should be 1.052 SG +/- 2-3 points. Record the number as your OG (original gravity).

****YOU HAVE NOW BEGUN PRIMARY FERMENTATION****

- Place the fermenter in a location that allows fermentation to occur at 65°F (or as close as possible).
- Primary fermentation typically lasts one week. Take a gravity reading to ensure fermentation is complete.
- This recipe does not require any dry hopping or secondary fruit or spice additions. You may simply leave in your primary fermenter for an additional week to condition before packaging.

BOTTLING & BEYOND

- ***TIP***** Ensure you have reached your FG for the recipe, this will tell you that primary fermentation has completed fully. Timing at this stage is flexible, if you need to wait to bottle that is ok.
- Make a simple syrup by combining 4 oz. of dextrose (corn sugar) in a pint of water on the stove.
 - Bring the sugar solution to a boil and simmer for 10 minutes.
 - Let this cool to room temperature. Sanitize your bottling equipment; bottles, auto-siphon, tubing, bottle filler, and bottle caps.
 - Add the cooled priming sugar solution into the bottling bucket. Siphon your beer into the bottling bucket to mix thoroughly with the sugar.
 - Transfer the beer into your bottles using the bottle filler and secure the caps. Your beer will be ready to drink after conditioning for two weeks at room temperature (70-74°F is best).
 - Once conditioning is complete place bottles in cool place and/or refrigerate. It is best to refrigerate for 24-48 hours before opening to ensure that the CO2 generated during bottle conditioning has fully mixed in with the beer.

**Pop the cap, relax and don't worry,
you're drinking homebrew!**