



Groundskeeper Billie Scotch Ale



⚠️ If your kit has **liquid yeast**, put it in the refrigerator as soon as possible.

Groundskeeper Billie is a wee heavy scotch ale with the addition of both peat malt and rauch malt for a complex smoky taste. The extremely high gravity and resulting alcohol should ensure bravery and lack of judgment. Drink fairly responsibly.

Calculated Appx.: O.G.: 1.083 F.G.: 1.024 ABV:8% IBU: 22 SRM: 19

Kit Ingredients

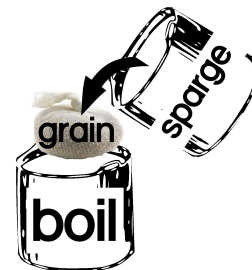
- Specialty Steeping Grains:
 - 1 lb British Caramel 55L
 - 1 lb Biscuit malt
 - ½ Rauch (smoked) malt
 - ¼ lb Chocolate malt
 - ¼ lb Peated malt
- 9-9.3 lb golden light malt extract
- 1 lb brown sugar
- 1 oz Nugget hop pellets (30min)
- 1 cup corn sugar (for bottling)
- Muslin sack to steep grains
- Wyeast 1728, WLP028, or S-04

⚠️ Please make sure that your kit contains these items. Please call us at 608-257-0099 before brewing if any item is missing. Thanks!

Directions

Sanitize everything well! Remember to stir periodically throughout the boil!

0. If you are using liquid yeast, about three to six hours before you are going to brew, remove the liquid yeast from the refrigerator. If it is a Wyeast pack, break the nutrient pack inside the yeast package according to the directions on the package. Leave the yeast out at room temperature until it is time to pitch your yeast into your beer.
1. Fill your kettle with 8 quarts of cold water, pour the crushed **steeping grain** into the grain sack, tie the sack closed, and place it into your kettle (**Note:** If your brew system allows you to boil more than 8 quarts, feel free to boil more liquid. This will allow you to get a bit better utilization from your hops and reduce carmelization). Turn on heat and bring mixture to 155F and then turn off heat. Steep the grains for 30 minutes. Do **not** boil grains.
2. While your grains are steeping, heat 4 quarts of water to 170F in a separate pot. After the 30 minute steep, remove the grains from the mixture and rinse them with the 4 quarts of hot water, collecting the runnings in your boil kettle. Then turn on the heat and bring the mixture to a boil. You will be boiling the mixture, called wort, for a total of 30 minutes. However, keep reading, because you'll be adding hops during that time.
3. When you achieve a boil, turn off the heat and empty the **6 lb golden light malt extract** into the hot water. (Extract may pour more easily if you open the top of the container and place it in a saucepan of



hot, not boiling, water for ten minutes prior to pouring. Do not apply direct heat to the jar). Stir extract into wort well.

4. Turn the heat back on and bring the wort to a boil. Upon initial boil the wort may foam up (called a “hot break”). If this happens, reduce the heat until the foam recedes, then turn up the heat, bring back to a boil, and maintain a rolling boil. Start your 30 minute boil timer now. Add **1 oz of Nugget** hop pellets and boil the wort for 25 minutes. This hop addition will impart all of the bitterness to your beer.
5. After these 25 minutes, turn off heat and add additional **3 lb golden light malt extract** and the **1 lb brown sugar** to the wort and stir in well. Then turn the heat back on and boil for another 5 minutes.
6. After these 5 minutes (30 minutes total), you are done boiling your beer, so it’s time to turn off the heat and start cooling the wort.
7. Sanitize fermentor, stopper, and air lock with sanitizing material according to its directions.
8. Fill the sanitized fermentor with 2.5 gallons of cold water (use less if you boiled more water than the recipe calls for). Cool your hot wort down to around 110-120F by placing your pot carefully into a sink of ice water for 15-30 minutes or by using a wort chiller. Carefully pour the hot wort into the cold water in the fermentor. If necessary, top up to 5 gallons with cold water.
9. Take a temperature reading of the wort. If the wort mixture in the fermentor is below 80°F (not warm to the touch), give the wort a good shake or a good stir with a sanitized metal or plastic spoon. Here you are trying to aerate the wort, which will help your yeast get going. This is also a good time to take a hydrometer reading. The number from this reading is your starting gravity. Add your beer **yeast**. Instructions are on the yeast package.
10. Seal your fermentor. Attach the fermentation lock half filled with water. Ferment at 60°-72°F for around 14 days. Note that it can take up to 24 hours for active fermentation to be visible. If you don’t see any activity in the air lock or foam on the surface of beer after 24 hours, call us at 608-257-0099. If doing a double stage fermentation, siphon the beer into the glass carboy after 5-7 days in the primary fermentor (the beer may be transferred to the glass carboy as soon as the foam has fallen far enough so the carboy will not overflow).
11. After 14 days, if your beer has ceased fermentation, you can go ahead and bottle or keg your beer. Whether you bottle or keg, sanitize everything that will contact the beer during packaging, including bottles, caps, kegs, siphon tubing, bottle filler, etc. Also, now is a good time to take a hydrometer reading. This would be your beer’s final gravity.
 - a. **Bottling, Single-Stage Fermentor:** Siphon beer into sanitized bottles. Pour just under 1 tsp. corn sugar in each bottle. Cap and turn bottles upside down several times to mix in sugar.
 - b. **Bottling, 2-Stage Fermentor:** Rack the beer carefully off the sediment into a sterilized fermentor or bottling bucket from the carboy. Bring ¾ pint of water to a boil. Turn off heat. Dissolve 1 cup of corn sugar in this hot water and stir gently into the beer. Bottle and cap.
 - c. **Kegging:** Siphon the beer into your sanitized keg, purge the oxygen from the head-space, hook up to your CO2, wait, and enjoy!
12. Store upright at room temperature (~70F) for 14 days to carbonate. Beer may then be stored at cooler temperatures to age. Beer may be consumed at any time, though it will continue to improve for several months.