



Rajah India Pale Ale



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

Rajah India Pale Ale is typical of the style. It is high in alcohol and well hopped-both meant to ward off bad spirits that might be encountered on long ocean voyages. Notice the tannin, slight vanilla flavors and oakiness imparted by the oak chips.

Approximate calculations: OG: 1.063 FG: 1.016 ABV: 6.1% IBU: 30 SRM: 11

Kit Ingredients

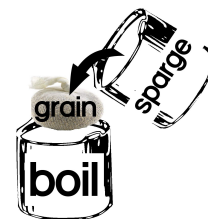
- Specialty Steeping Grains:
 - 1 lb Caramel 10L malt
 - 1 oz Oak chips (20 min)
- 7 lb Golden Light malt extract
- 1 oz Chinook hops (30 min)
- 1 oz Willamette hops (5 min)
- 1 oz Kent Golding hops (dry hop)
- 1 lb brown sugar
- 1 cup corn sugar (for bottling)
- 2 muslin sacks (grain, oak)
- S-04, Wyeast 1098, or WLP005 yeast

⚠️ 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 caramelization). Turn on heat and bring mixture to 160F and then turn off heat. Steep the grains for 15 minutes. Do **not boil** grains.
2. While grains are steeping, heat 4 quarts of water to 170F in a separate pot. After the 15 minute steep, **remove the grains** from mixture and rinse (sparge) with 4 quarts of hot water, collecting runnings in your boil kettle. Then turn on heat and bring 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 **Golden Light malt extract** and **brown sugar** 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 timer at this point in the brewing process. Add **1 oz of Chinook** hop pellets and boil the wort for 10 minutes. This hop addition will impart most of the bitterness to your beer.
5. After these 10 minutes, it’s time to add the oak chips. Place the oak chips in the small muslin sack and tie the sack shut. Add the oak chips and then boil 15 more minutes.
6. After these 15 minutes (25 minutes total), add **1 oz Willamette** hop pellets and continue to boil for 5 more minutes. After these 5 minutes (30 minutes total), you are now done boiling your beer, so it’s time to turn off the heat. Remove the oak chips.
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. However you ferment, add **1 oz Kent Golding hops** to beer after 7 days of fermentation (if doing 2-stage fermentation, add these hops when you siphon your beer into secondary fermentor).
12. After around 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 $\frac{3}{4}$ 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!
13. 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 weeks.