

BITTE BURGER PILS

Official NORTHERN BREWER Instructional Document

German Pilsner: the Porsche Boxster of lagers, packing a lot of oomph into a lithe frame. Toeing the line on IBUs and color, Bitte is light, lean, way bitter and way dry. To get from here to there it may be necessary to close your eyes before you brew and imagine a very stern German blonde admonishing you to boil a large volume and prepare a yeast starter.

Deep straw color with a brassy, well-spoken noble Pilsner malt profile, Bitte is suffused throughout with hop bitterness, loaded up in the front and middle of the boil for a tingling bitter bite and subtle resinous-sweet-herbal flavor. In a nutshell: clean, dry, and snappy.

Thanks to Wyeast's temperature-tolerant Rasenmaher Lagerbier strain, a batch of this elegant and refined (yet entirely chuggable) lager is within your reach even if you don't have a dedicated lager fridge: the good ol' swamp cooler (tub of ice water, an old t-shirt to cover the carboy, and a fan) will get you feeling the Fahrvegnugen.

O.G: 1.045 READY: 8 WEEKS

- 1-2 weeks primary, one month secondary,
- 2 weeks bottle conditioning

KIT INVENTORY:

MAILLARD MALTS™ SPECIALTY GRAIN

- 0.75 lbs Weyermann CaraFoam
- 0.25 lbs Weyermann CaraHell

MAILLARD MALTS™ EXTRACTS & OTHER FERMENTABLES

- 6.3 lbs Pilsen malt syrup

HOPTIMUS REX™ PREMIUM HOPS & OTHER FLAVORINGS

- 1 oz Northern Brewer (60 min)
- 0.75 oz Tettnang (20 min)
- 0.75 oz Hallertau Mittelfruh (20 min)
- 0.25 oz Tettnang (10 min)
- 0.25 oz Hallertau Mittelfruh (10 min)

YEAST

- **WYEST 2252 RASENMAHER LAGERBIER.** This versatile lager strain is an excellent choice for brewing your favorite low alcohol lawnmower beer. When used in low temperature fermentations, this strain will produce clean lagers that accentuate the malt character of the beer. When used at high temperatures this strain maintains much of the lager character, but will also yield a mild ester profile that compliments hop aromas and flavors. Attenuation: 73-77%. Flocculation: low. Temperature Range: 48-68° F (9-20° C).

BEFORE YOU BEGIN ...

MINIMUM REQUIREMENTS

- Homebrewing starter kit for brewing 5 gallon batches
- Boiling kettle of at least 3.5 gallons capacity
- A 5 gallon glass carboy, with bung and airlock, to use as a secondary fermenter - If you do not have a secondary fermenter you may skip the secondary fermentation and add an additional week to primary fermentation before bottling

- Approximately two cases of either 12 oz or 22 oz pry-off style beer bottles

UNPACK THE KIT

- Refrigerate the yeast upon arrival
- Locate the Kit Inventory (above)- this is the recipe for your beer, so keep it handy
- Doublecheck the box contents vs. the Kit Inventory
- Contact us immediately if you have any questions or concerns!

PROCEDURE

A FEW DAYS BEFORE BREWING DAY

1. Remove the liquid Wyeast pack from the refrigerator, and "smack" as shown on the back of the yeast package. Leave it in a warm place (70-80° F) to incubate until the pack begins to inflate. Allow at least 3 hours for inflation; some packs may take up to several days to show inflation. Do not brew with inactive yeast - we can replace the yeast, but not a batch that fails to ferment properly. If you are using dry yeast, no action is needed.

ON BREWING DAY

2. Collect and heat 2.5 gallons of water.

3. For mail-order customers grains for extract kits come crushed by default, but if you requested uncrushed grains, crush them now. Pour crushed grain into supplied mesh bag and tie the open end in a knot. Steep for 20 minutes or until water reaches 170°F. Remove bag and discard.

4. Bring to a boil and add the 6.3 lbs Pilsen malt syrup. Remove the kettle from the burner and stir in the Pilsen malt syrup.

5. Return wort to boil. The mixture is now called "wort", the brewer's term for unfermented beer.

- Add 1 oz Northern Brewer hops and boil for 60 minutes.
- Add 0.75 oz Tettnang hops 20 minutes before the end of the boil.
- Add 0.75 oz Hallertau Mittelfruh hops 20 minutes before the end of the boil.
- Add 0.25 oz Tettnang hops 10 minutes before the end of the boil.
- Add 0.25 oz Hallertau Mittelfruh hops 10 minutes before the end of the boil.

6. Cool the wort. When the 60-minute boil is finished, cool the wort to approximately 100° F as rapidly as possible. Use a wort chiller, or put the kettle in an ice bath in your sink.

7. Sanitize fermenting equipment and yeast pack. While the wort cools, sanitize the fermenting equipment - fermenter, lid or stopper, fermentation lock, funnel, etc - along with the yeast pack and a pair of scissors.

8. Fill primary fermenter with 2 gallons of cold water, then pour in the cooled wort. Leave any thick sludge in the bottom of the kettle.

9. Add more cold water as needed to bring the volume to 5 gallons.

10. Aerate the wort. Seal the fermenter and rock back and forth to splash for a few minutes, or use an aeration system and diffusion stone.

11. Measure specific gravity of the wort with a hydrometer and record.

12. Add yeast once the temperature of the wort is 78°F or lower (not warm to the touch). Use the sanitized scissors to cut off a corner of the yeast pack, and carefully pour the yeast into the primary fermenter.

13. Seal the fermenter. Add approximately 1 tablespoon of water to the sanitized fermentation lock. Insert the lock into rubber stopper or lid, and seal the fermenter.

14. Move the fermenter to a warm, dark, quiet spot until fermentation begins.

BEYOND BREWING DAY, WEEKS 1-2

15. Active fermentation begins. Within approximately 48 hours of Brewing Day, active fermentation will begin - there will be a cap of foam on the surface of the beer, the specific gravity as measured with a hydrometer will drop steadily, and you may see bubbles come through the fermentation lock. The optimum fermentation temperature for this beer is 48-68° F - move the fermenter to a warmer or cooler spot as needed.

16. Active fermentation ends. Approximately two weeks after brewing day, active fermentation will end. When the cap of foam falls back into the new beer, bubbling in the fermentation lock slows down or stops, and the specific gravity as measured with a hydrometer is stable, proceed to the next step.

17. Transfer beer to secondary fermenter. Sanitize siphoning equipment and an airlock and carboy bung or stopper. Siphon the beer from the primary fermenter into the secondary.

BEYOND BREWING DAY- SECONDARY FERMENTATION

18. Secondary fermentation. Allow the beer to condition in the secondary fermenter for 1 month before proceeding with the next step. Timing now is somewhat flexible.

BOTTLING DAY-ABOUT 1.5 MONTHS AFTER BREWING DAY

19. Sanitize siphoning and bottling equipment.

20. Mix a priming solution (a measured amount of sugar dissolved in water to carbonate the bottled beer). Use the following amounts, depending on which type of sugar you will use:

- Corn sugar (dextrose) $\frac{2}{3}$ cup in 16 oz water.
- Table sugar (sucrose) $\frac{5}{8}$ cup in 16 oz water.

Then bring the solution to a boil and pour into the bottling bucket.

21. Siphon beer into bottling bucket and mix with priming solution. Stir gently to mix, don't splash.

22. Fill and cap bottles.

1-2 WEEKS AFTER BOTTLING DAY

23. Condition bottles at room temperature for 2 weeks. After this point, the bottles can be stored cool or cold.

24. Serving. Pour into a clean glass, being careful to leave the layer of sediment at the bottom of the bottle. Cheers!