

PERMAFROST WHITE IPA

Official NORTHERN BREWER Instructional Document

This complex and hoppy brew will help you to navigate the doldrums of seemingly never ending winters. Developed with the pioneering spirit of American brewers, this White IPA melds old world tradition with the hoppy boldness of an American IPA. At first glance this beer is as white as a frozen tundra, but upon closer scrutiny, tall drifts of American hop flavor and aromas abound. A traditional witbier grain bill and yeast strain coupled with West Coast American hops yields a wonderfully complex India White Ale. A slight spice and tartness from the yeast intermingling with citrus notes from abundant hop additions compliment the silky smooth body created by flaked oats and unmalted wheat. Stay frosty my friends!

O.G: 1.065 READY: 6 WEEKS

2 weeks primary, 2-4 weeks secondary,
2 weeks bottle conditioning

KIT INVENTORY:

MAILLARD MALTS™ SPECIALTY GRAIN

- 0.75 lb Unmalted Wheat
- 0.75 lb Flaked Oats

MAILLARD MALTS™ EXTRACTS & OTHER FERMENTABLES

- 6 lbs Wheat malt syrup
- 3.15 lbs Gold malt syrup (15 min late addition)

HOPTIMUS REX™ PREMIUM HOPS & OTHER FLAVORINGS

- 0.5 oz Summit (60 min)
- 0.5 oz Centennial (30 min)
- 1 oz Amarillo (20 min)
- 1 oz Centennial (15 min)
- 1 oz Amarillo (10 min)
- 0.5 oz Centennial (5 min)

DRY HOPS

- 1 oz Galaxy (Dry Hop)
- Add to secondary fermenter one to two weeks before bottling day

YEAST

- **LIQUID YEAST OPTIONS:**
Wyeast 3944 Belgian Wit. Optimum temp: 62-75° F
White Labs WLP400 Belgian Wit Ale. Optimum temp: 67-74° F
- **PRIMING SUGAR**
- 5 oz Priming Sugar (save for Bottling Day)

BEFORE YOU BEGIN ...

MINIMUM REQUIREMENTS

- Homebrewing starter kit for brewing 5 gallon batches
- Boiling kettle of at least 3.5 gallons capacity
- 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
- Double check 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. Remove the kettle from the burner and stir in 6 lbs Wheat malt syrup.
5. Return wort to boil. The mixture is now called “wort”, the brewer’s term for unfermented beer.
 - Add 0.5 oz Summit hops and boil for 60 minutes.
 - Add 0.5 oz Centennial 30 minutes before the end of the boil.
 - Add 1 oz Amarillo 20 minutes before the end of the boil.
 - Add 1 oz Centennial hops and the 3.15 lbs Gold malt syrup 15 minutes before the end of the boil.
 - Add 1 oz Amarillo 10 minutes before the end of the boil.
 - Add 0.5 oz Centennial 5 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. Optional: if you have our Mad Brewer Upgrade or Gravity Testing kits, 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, and you may see bubbles come through the fermentation lock.

16. Active fermentation ends. Approximately 1-2 weeks after brewing day, active fermentation will end: the cap of foam falls back into the new beer, bubbling in the fermentation lock slows down or stops.

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 2-4 weeks before proceeding with the next step. Timing now is somewhat flexible.

19. Add the dry hops. Add 1 oz Galaxy hops to the secondary fermenter 1-2 weeks before bottling day.

BOTTLING DAY—ABOUT 2–4 WEEKS AFTER BREWING DAY

20. Sanitize siphoning and bottling equipment.

21. Mix a priming solution (a measured amount of sugar dissolved in water to carbonate the bottled beer) of $\frac{2}{3}$ cup priming sugar in 16 oz water. Bring the solution to a boil and pour into the bottling bucket.

22. Siphon beer into bottling bucket and mix with priming solution. Stir gently to mix—don’t splash.

23. Fill and cap bottles.

2 WEEKS AFTER BOTTLING DAY

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

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