

# PERMAFROST WHITE IPA (All Grain)

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

Suggested fermentation schedule:

- 2 week primary; 2-4 weeks secondary;  
2 weeks bottle conditioning

## MASH INGREDIENTS

- 7.0 lbs Rahr 2-row
- 4.5 lbs White Wheat Malt
- 0.75 lb Unmalted Wheat
- 0.75 lb Flaked Oats

## BOIL ADDITIONS

- 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
- 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)

## MASH SCHEDULE: SINGLE INFUSION

Sacch' Rest: 150° F for 60 minutes

Mashout: 170° F for 10 minutes

## BOIL ADDITIONS & TIMES

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0.5 oz Centennial (30 min)

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