

# Pale Ale

Perhaps the most widely brewed American style ale. Moderately strong hop aroma and bitterness. Pale ale malt base provides deep gold, almost amber, color and medium-bodied mouthfeel.

IBUs: 32 - 36	OG: 1.051 - 1.055	FG: 1.015 - 1.019	
ABV: 4.7% - 5.2%	Difficulty: Easy	Color: Pale Amber	

#### Contents

- Ingredients Priming Sugar
- · Grain Bag Bottle Caps
  - Brewing Procedures

Hops may vary due to availability.

# Glossary

<u>OG</u>

Original Gravity

<u>SG</u>

Specific Gravity

<u>FG</u>

Final Gravity

CO2

Carbon Dioxide

**DME** 

Dried Malt Extract

**LME** 

Liquid Malt Extract

**IBU** 

International Bittering Units (Tinseth)

**ABV** 

Alcohol by Volume

#### Ingredients

FERMENTABLES

- 1 lb. Pale Ale DME
- 4 oz. Pale Ale DME

SPECIALTY GRAINS

4 oz. Caramel 20l

**HOPS** 

- 3g Galena Hops
- 3g Chinook Hops
- 3g Willamette Hops

YEAST

1 Sachet

(NOTE: you will only use 1 teaspoon of the provided yeast sachet.)

# **Recommended Procedures**

# BREW DAY (DATE \_\_/\_\_/\_)

### 1. READ

Read all of the recommended procedures before you begin.

#### 2. SANITIZE

Thoroughly clean and sanitize ALL brewing equipment and utensils that will come in contact with any ingredients, wort or beer with a certified sanitizer, e.g., Star San or IO Star.

#### 3. STEEP GRAINS

Pour 1.5 gallons of clean water into your brew pot and begin to heat. Pour crushed grains into grain bag and tie a loose knot at the top of the bag<sup>1</sup>. When the water is within an appropriate steeping temperature (150° - 165°F) place the grain bag into the brew pot<sup>2</sup>. Steep grains for approximately 20 minutes. Remove grain bag and without squeezing, allow liquid to drain back into brew pot. Your water is now wort.

# 4. START BOIL

Bring your wort to a gentle, rolling boil. Add all of the included DME to the boiling wort. Continuously stir the DME into the wort as it returns to a gentle, rolling boil3.

# 5. FOLLOW SCHEDULE<sup>4</sup>

As directed on the BREW DAY SCHEDULE (right), slowly sprinkle the first hop addition into the boiling wort (#1 in brew day schedule). Be careful not to let the wort boil over the pot. Using the provided BREW DAY SCHEDULE, note the time that each hop addition was added to the boil in oder to keep your hop additions on schedule. Continue the gentle, rolling boil and follow the BREW DAY SCHEDULE until the boil is complete.



# **Recommended Brew Day Equipment**

- 8 Quart or Larger Brew Pot
- 2 Gallon Pail w/Lid (primary fermenter)
- Screw Cap with Hole
- Airlock
- 1 Gallon Glass Jug (secondary fermenter) Spoon or Paddle
- Hydrometer
- Thermometer
- No-Rinse Sanitizer
- Cleanser

#### **Brew Tips**

<sup>1</sup>The grains should not be compacted inside the bag. Grains should steep loosely allowing the hot water to soak into all of the grain evenly.

<sup>2</sup>Pay careful attention not to let your steeping water exceed 170°F which leeches tannins into the wort.

<sup>3</sup>Pay careful attention that the DME does not accumulate and caramelize on the bottom of your brew pot.

<sup>4</sup>When consumed, hops can cause malignant hyperthermia in dogs, sometimes with fatal results. Even small amounts, including "spent" hops from brewing, can trigger a deadly reaction.

<b>BREW DAY SCHEDULE</b>	BR	<b>PW</b>	DAY	SCH	<b>EDI</b>	JLE
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- 1. Add 3 grams Galena hops (time)
- 2. Boil 45 minutes
- 3. Add 3 grams Chinook hops (time)
- 4. Boil 10 minutes
- 5. Add 3 grams Willamette hops \_\_ (time)
- 6. Boil final 5 minutes
- 7. Terminate Boil (time)

**Total Boil Time: 60 Minutes** Continue to Step #6

# Recommended Procedures (continued)

#### 6. COOL WORT & TRANSFER

Cool the wort down to approximately 70°F by placing the brew pot in a sink filled with ice water<sup>5</sup>. Siphon wort into a sanitized 2 gallon pail (primary fermenter)<sup>6</sup>. Avoid transferring the heavy sediment (trub) from the brew pot to the fermenter. Take an OG reading with a sanitized hydrometer and record it in your ABV% CALCULATOR (right).

#### 7. PITCH YEAST

Measure out <u>1 teaspoon</u> of yeast (DO NOT REHYDRATE) and sprinkle the yeast over top of the entire wort surface and stir well with a sanitized spoon or paddle. Firmly secure the lid onto the fermenter. Fill your airlock halfway with water and gently twist the airlock into the grommeted lid. Move fermenter to a dark, warm, temperature-stable area (approx. 64° - 72°F).

# **FERMENTATION**

#### 8. MONITOR & RECORD

The wort will begin to ferment within 24 hours and you will notice CO2 releasing (bubbling) out of the airlock. Within 4 - 6 days the bubbling will slow down and become intermittent or may stop completely. Once fermentation has slowed, rack your beer into your secondary fermenter (1 gallon glass jug). See **Two-Stage (Secondary) Fermentation** (right).

# BOTTLING DAY (DATE / / )

#### 9. READ

Read all of the recommended procedures before you begin.

#### 10. SANITIZE

Thoroughly clean and sanitize ALL brewing equipment, utensils, and bottles that will come in contact with any ingredients, wort or beer with a certified sanitizer, e.g., Star San or IO Star.

## 11. PREPARE PRIMING SUGAR

In a small saucepan dissolve 1 oz. of priming sugar into 1/2 cup of boiling water for 5 minutes. Pour this mixture into a clean and sanitized 2 gallon pail. Carefully siphon beer from the secondary fermenter (1 gallon glass jug) into the 2 gallon pail. Avoid transferring any sediment. Stir gently for about a minute.

#### 12. BOTTLE

Using your siphon setup and bottling wand, fill the bottles<sup>7</sup> to within approximately one inch of the top of the bottle. Use a bottle capper to apply sanitized crown caps.

#### 13. BOTTLE CONDITION

Move the bottles to a dark, warm, temperature-stable area (approx.  $64^{\circ}$  -  $72^{\circ}$ F). Over the next two weeks the bottles will naturally carbonate. Carbonation times vary depending on the temperature and beer style, so be patient if it takes a week or so longer.

CHILL & ENJOY YOUR TASTY BREW AND THANK YOU FOR CHOOSING BREWER'S BEST® PRODUCTS.

#### **Brew Tips**

<sup>5</sup>To avoid bacteria growth do this as rapidly as possible. Do not add ice directly to the wort. Alternatively, you can use a brewing accessory like a Wort Chiller.

<sup>6</sup>If your 2 gallon pail doesn't have gallon markings, pour 1 gallon of water into the pail and mark the outside of the pail with a permanent marker for reference.

<sup>7</sup>Use standard crown bottles, preferably amber color. Make sure bottles are thoroughly clean. Use a bottle brush if necessary to remove stubborn deposits. Bottles should be sanitized prior to filling.

# **Two-Stage (Secondary) Fermentation**

Brewer's Best® recommends home brewers employ the practice of a two-stage fermentation. This will allow your finished beer to have more clarity and an overall better, purer flavor. All you need is a 1 gallon glass jug, screw cap with a hole, airlock and siphon setup to transfer the beer. You will also need to monitor and record the SG with your hydrometer when the beer is in the 'primary'. When the fermentation slows (4-6 days), but before it completes, simply transfer the beer into the 1 gallon jug and allow fermentation to finish in the 'secondary'. Leave the beer for about two weeks and then proceed to Bottling Day. Consult your local retailer to learn more about this technique.

(SECONDARY RACK DATE \_\_\_/\_\_\_)

# Recommended Bottling Day Equipment

- 2 Gallon Pail
- Bottle Brush
- Siphon Setup
- Capper
- Bottle Filling Wand
- Sanitizer
- 12 oz. Bottles (approx. 10)
- Brewer's Best® Crown Caps

#### **ABV% Calculator**

(OG - FG) x 131.25 = ABV%

\_\_\_\_\* - \_\_\_\_\*\*) x 131.25 = \_\_\_\_%

\*OG from Step #6
\*\*FG from Step #8



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