



Munich Helles

A light-colored German lager with a malty profile. Slightly sweet with just enough bittering hops to balance the malt. This kit includes a lager yeast that will also perform well if fermented at ale temperatures.

IBUs: 16 - 20	OG: 1.045 - 1.051	FG: 1.012- 1.016
ABV: 4.75% - 5.25%	Difficulty: Intermediate	Color: Deep Gold

Contents

- Ingredients
 - Grain Bag(s)
 - Priming Sugar
 - Bottle Caps
 - Brewing Procedures
- Hops may vary due to availability.

Glossary

<u>OG</u> Original Gravity	<u>DME</u> Dried Malt Extract
<u>SG</u> Specific Gravity	<u>LME</u> Liquid Malt Extract
<u>FG</u> Final Gravity	<u>IBU</u> International Bittering Units (<i>Tinseth</i>)
<u>CO2</u> Carbon Dioxide	<u>ABV</u> Alcohol by Volume

Ingredients

- FERMENTABLES**
3.3 lb. Pilsen LME
3.3 lb. Munich LME
- SPECIALTY GRAINS**
4 oz. Honey Malt
4 oz. Vienna Malt
8 oz. Carapils®
- HOPS**
.5 oz. Bittering
.5 oz. Flavoring
- YEAST**
1 Sachet

Recommended Procedures

NOTE: This recipe incorporates late malt additions to ensure the proper color for this beer style. This is a lager recipe and includes lagering procedures which require special temperature-controlled conditions.

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.

3. STEEP GRAINS

Pour 2.5 gallons of clean water into your brew pot and begin to heat¹. Pour crushed grains into grain bag and tie a loose knot at the top of the bag². When the water is within an appropriate steeping temperature (150° - 165°F) place the grain bag into the brew pot³. 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 the included 3.3 lb. PILSEN LME (one tin) to the boiling wort⁴. Continuously stir the extract into the wort as it returns to a gentle, rolling boil⁵.

5. ADD HOPS⁶

Slowly sprinkle the bittering hops into the boiling wort. Be careful not to let the wort boil over the pot. Using the provided BREW DAY SCHEDULE (right), note the time the bittering hops were added. Continue the gentle, rolling boil.

6. FOLLOW SCHEDULE

The BREW DAY SCHEDULE (right) will guide you through the remaining addition of ingredients until the boil is complete. Fill in the estimated times to help keep your brew on schedule.

Recommended Brew Day Equipment

- 4 Gal. Brew Pot (or larger)
- 6.5 Gal. Fermenter
- Airlock
- Long Spoon or Paddle
- Hydrometer
- Thermometer
- No-Rinse Sanitizer
- Cleanser

Brew Tips

¹The volume of wort boiled affects hop utilization. Boiling more than 2.5 gallons will increase the IBU's and they will decrease if wort volume is less than 2.5 gallons. IBU's for this recipe are calculated for a 2.5 gallon boil.

²The grains should not be compacted inside the bag. Grains should steep loosely allowing the hot water to soak into all of the grain evenly.

³Pay careful attention not to let your steeping water exceed 170°F which leeches tannins into the wort.

⁴Run canisters of LME under hot water to allow the extract to pour easier.

⁵Pay careful attention that the extract does not accumulate and caramelize on the bottom of your brew pot.

⁶When consumed, hops can cause malignant hyperthermia in dogs, sometimes with fatal results.

BREW DAY SCHEDULE

1. Add bittering hops _____ : ____ (time)
2. Boil 40 minutes
3. Add flavoring hops _____ : ____ (time)
4. Boil 5 minutes
5. Add remaining 3.3 lb. LME _____ : ____ (time)
6. Boil final 15 minutes
7. Terminate boil _____ : ____ (time)

Total Boil Time: 60 minutes

Continue to Step #7

Recommended Procedures (continued)

7. COOL WORT & TRANSFER

Cool the wort down to approximately 60°F by placing the brew pot in a sink filled with ice water⁷. Pour or siphon wort into a sanitized fermenter. Avoid transferring the heavy sediment (trub) from the brew pot to the fermenter.

8. ADD WATER

Add enough clean water (approx. 50° - 60°F) to the fermenter to bring your wort to approximately 5 gallons. Thoroughly stir the water into the wort. Be careful not to add a volume of water that will cause the wort to fall outside of the OG range specified in the BREW STATS⁸. Once you are satisfied your wort is at the proper volume and within the OG range, record the OG in the ABV% CALCULATOR (right).

9. PITCH YEAST

Sprinkle the contents of the yeast sachet 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 grommated lid. Move the fermenter to a cool, lager-specific, temperature-stable area (approx. 53° - 59°F).

FERMENTATION

10. PRIMARY

The wort will begin to ferment within 48 hours and you will notice CO₂ releasing (bubbling) out of the airlock. The included lager yeast will ferment out in 10-14 days within the indicated temperature range. When the airlock indicates bubbling has completely stopped and the gravity remains the same for two full days the beer has reached its Final Gravity (FG)¹¹.

11. SECONDARY/LAGERING

Transfer the beer to a clean, sanitized 5-gallon carboy. Lower the temperature 1° to 3° per day until it reaches 35° - 42°F⁹. Lager within this temperature range 3 - 4 weeks. After at least 2 weeks take a FG reading with a sanitized hydrometer and record it in your ABV% CALCULATOR.

BOTTLING DAY (DATE ___/___/___)

12. READ

Read all of the recommended procedures before you begin.

13. SANITIZE

Thoroughly clean and sanitize ALL brewing equipment and utensils that will come in contact with any ingredients, wort or beer.

14. PREPARE PRIMING SUGAR

In a small saucepan dissolve priming sugar into 2 cups of boiling water for 5 minutes. Pour this mixture into a clean bottling bucket. Carefully siphon beer from the fermenter to a bottling bucket. Avoid transferring any sediment. Stir gently for about a minute.

15. BOTTLE

Using your siphon setup and bottling wand, fill the bottles¹⁰ to within approximately one inch of the top of the bottle. Use a bottle capper to apply sanitized crown caps.

16. BOTTLE CONDITION

Move the bottles to a dark, warm, temperature-stable area (approx. 64° - 72°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
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Brew Tips

⁷To 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.

⁸Use a sanitized hydrometer while adding water to monitor the SG.

⁹Filling your airlock with distilled spirits will prevent it from freezing.

¹⁰Use 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.

¹¹Before proceeding to the lager stage be sure the beer is in your secondary fermenter and has reached its FG, then begin lowering the temperature as indicated in Step #11.

Brewed As An Ale

Brewer's Best® recommends lagering this recipe to achieve the true lager character of this beer style. However, if you are not properly equipped to lager your beer, the included yeast will perform well when fermented as an ale. When fermenting as an ale (between 64° - 72°F) try to keep the beer on the cooler end of the temperature range and allow for some additional time for the lager yeast to ferment down to the FG. If possible, rack to a secondary fermenter for two weeks prior to bottling. Consult your local homebrew shop to learn more about the equipment necessary to lager your beers. Although this method is not as accurate as temperature-controlled lagering equipment, most climates provide a seasonal window that will allow you to lager beer.

Recommended Bottling Day Equipment

- 6.5 Gal. Bottling Bucket
- Siphon Setup
- Bottle Filling Wand
- 12 oz. Bottles (approx. 53)
- Brewer's Best® Crown Caps
- Bottle Brush
- Capper
- Sanitizer

ABV% Calculator

$$(OG - FG) \times 131.25 = ABV\%$$

$$(\text{___}^* - \text{___}^{**}) \times 131.25 = \text{___}\%$$

*OG from Step #8

**FG from Step #11



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