



NORTHERN BREWER

O.G.	ABV	IBU	BREW TIME: 8 WEEKS
1.041	4.2%	12	Primary: 2 Weeks Secondary: 4 Weeks Bottle Conditioning: 2 Weeks

# LIME TREE LAGER

Lime Tree Lager is the perfect beer for enjoying outside on a warm summer day, or for bringing back memories of warm days during cold and dark winter evenings. A simple malt base of barley and rice paired with a modest addition of classic German Hallertau hops become the stage for the natural lime to shine. Bright, clean and absolutely refreshing, Lime Tree Lager pairs perfectly with pools, friends, and classic American barbeque fare.

## KIT INVENTORY

### GRAIN BILL

6 lbs Rahr 2-Row  
3 lbs Flaked Rice

### PREMIUM HOPS

1 oz Hallertau 30 min

### FLAVORING

18g Crystallized Lime  
bottling

## SUGGESTED YEAST

### YEAST

#### DRY YEAST:

**Fermentis Saflager W-34/70**

Optimum Temp: 53°- 59°F

#### LIQUID YEAST OPTION:

**Omega Yeast OYL-106 German Lager I**

Optimum temp: 45°- 68°F

**Imperial Yeast L13 Global**

Optimum temp: 46°- 56°F

## BEFORE BREW DAY

- Upon arrival, unpack kit.
- Read all instructions before starting.
- Be sure you have all items listed in the Kit Inventory.
- Refrigerate liquid yeast.
- If making a yeast starter, we suggest 24-48 hrs.
- Contact us if you have any questions or concerns.

## YOU WILL NEED

- Homebrewing equipment for brewing 5 gallon batches.
- All-grain equipment kit with mash tun and hot liquor tank
- Boiling kettle (at least 8 gallon capacity).
- Approx. 2 cases of 12 oz or 22 oz pry-off beer bottles.
- **Optional** - 5 gallon carboy, with bung and airlock, to use as secondary fermentor.

## A FEW HOURS BEFORE BREW DAY

Remove liquid yeast packages from the refrigerator. Allow to warm to your desired fermentation temperature (~50°F). Check yeast instructions on packet.

## BREWING NOTES

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## KEY STATS

Brew Day Date: \_\_\_\_\_

Secondary: \_\_\_\_\_

Important Additions: \_\_\_\_\_

Bottling/Kegging: \_\_\_\_\_

Fermentation Temp: \_\_\_\_\_

Yeast Strain #: \_\_\_\_\_

Measured OG: \_\_\_\_\_ FG: \_\_\_\_\_

## MASH SCHEDULE

### SINGLE INFUSION

If you are new to all-grain, we suggest starting with 1.5 quarts of water per pound of grain for strike water volume. This mash thickness can be adjusted for future brews as you become more comfortable with your equipment.

**Saccharification Rest:** 152° F for 60 minutes

**Mashout:** 170° F for 10 minutes (optional)

To raise the temp for mashout, gently apply direct heat while stirring well (if using a kettle), or add near boiling water until target temp is reached.

Prepare sparge water in hot liquor tank at a rate of 2 quarts per pound of grain. Perform a fly sparge until you reach pre-boil volume (6-7 gallons) in your kettle. Sparge should take about an hour for optimal extraction efficiency. You should end with extra sparge water in hot liquor tank. Use this hot water to clean later on.

### BOIL ADDITIONS & TIMES

Total time: 60 mins

- 1 oz Hallertau -  
30 min remaining

### AFTER THE BOIL

1. When 60 minute boil is finished, remove from heat.
2. Cool wort to 50°-55°F as quickly as possible.
3. Sanitize fermenting equipment and yeast pack: While wort cools, sanitize fermenting equipment (fermenter, lid or stopper, airlock, funnel, etc) along with yeast pack.
4. Transfer cooled wort into primary fermentation vessel using valve on boil kettle, siphoning from boil kettle, OR pouring wort into fermenter.
5. Aerate wort. Seal fermenter and rock back and forth to splash for a few minutes, or use an aeration system and diffusion stone.
6. Measure specific gravity of wort with a hydrometer. Record. Target gravity for this kit is 1.041.
7. Add yeast once temp of wort is between 49°-53°F. Sanitize and open yeast pack. Carefully pour contents into primary fermenter.
8. Seal fermenter. Add 1 tbsp of sanitizer or clean water to sanitized airlock. Insert airlock into rubber stopper or bucket lid. Seal fermenter.
9. Move fermenter to a cool (preferably a temperature controlled refrigerator), dark, quiet spot until fermentation begins.

### PRIMARY FERMENTATION

10. **Within 48 hours Active fermentation begins.**  
You'll see a cap of foam on the surface of the beer. Specific gravity as measured with a hydrometer will drop steadily. You may see bubbles in the fermentation lock. The optimum temp. for this beer is 50°- 55°F.
11. **Within 2 weeks Active fermentation ends.**  
Proceed to next step when:
  - Cap of foam falls back into the beer.
  - Bubbling in airlock slows down or stops.
  - Specific gravity as measured with a hydrometer is stable.

### LAGERING

- NOTE:** You may skip transferring to secondary fermentator and simply leave the beer in the primary fermentor.
12. Sanitize siphoning equipment, airlock, carboy bung or stopper. Siphon beer from primary fermenter into secondary. (optional - see above)
  13. Allow the beer to condition (lager) in a refrigerator near freezing temperatures for 4 weeks before proceeding to the next step. Timing is now somewhat flexible.

### BOTTLING DAY (ABOUT 4 WEEKS AFTER BREWING DAY)

14. Sanitize siphoning and bottling equipment.
  15. Mix a priming solution (sugar dissolved in water; carbonates bottled beer). Use the following amounts, depending on which type of sugar you use:
    - Corn sugar (dextrose) 2/3 cup in 16oz water.
    - Table sugar (sucrose) 5/8 cup in 16oz water.
- Bring solution to a boil and **add 18 grams crystallized lime**. Stir to dissolve. Pour into bottling bucket.
16. Siphon beer into bottling bucket and mix with priming solution. Stir gently to mix
    - do not splash.

### CONDITIONING (ABOUT 6 WEEKS AFTER BREWING DAY)

17. Fill and cap bottles.
18. Condition bottles at room temp. for 1-2 weeks. After this point, store bottles cool or cold.
19. Serving: Pour into a clean glass. Be careful to leave any sediment at the bottom of the bottle. Cheers!

## WE'VE GOT YOUR BATCH

We're so confident in the quality of our beer kits, we'll replace any kit, anytime, no questions asked.

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