



# The People's Lager

Lager – 5.5 Gal - OG 1.046 – FG 1.009 – ABV 4.9% - IBU 19 – SRM 1

**Lagers.** They are the most divisive beer style around. Many craft brewers, and enthusiasts got into craft because they were tired of the North American domestic beer scene. “It’s like drinking water!” “tastes like piss!” were some of the many refrains that get tossed around when discussing big domestic lagers.

Here’s the funny thing about lagers though – they’re incredibly hard to make properly. Lagers are so clean, that any mistake made in the brewing and fermentation process is magnified x 10. Things like DMS and Diacetyl are ever present threats. Fermentation temperature is critical for this style, and that temperature happens to be around 10°C, followed by a lengthy period at 0°C.

All of these factors make it really hard for homebrewers to make lagers. Temp control during fermentation is the biggest hurdle to climb, but, we have made a recipe that is a little more flexible than the average lager recipe. This recipe can be made like a traditional lager, but we had great success making it ‘against the rules’. **We intentionally fermented this recipe at 18°C for 10 days**, it never dipped below 18°C. We also made it in under 2 weeks, another lager no-no.

The point of breaking all the lager rules was to see if any homebrewer could make their own lagers – even without temperature control or aging tanks. The result is a relatively clean tasting, crisp easy drinking lager. It is a tiny bit more estery than a domestic lager – but overall it is quite close. So if you find the ‘horse piss’ taste of lagers not to your liking – this beer will also not be to your liking. However, if you’re like us, and love to crush a cold one after a vigorous game of Sports. Then this beer is for you.

## Ingredients

### Grains

	Amount (lbs)
Pilsner	7.5
Flaked Rice	2.0
Carafoam	0.5
Acidulated Malt	0.1

Use this to adjust the mash pH due to Guelph’s hard water

### Hops

	Amount (oz)	Boil Schedule (minutes)
Crystal (4%)	1	60
Hallertau (4.5%)	1	15
Hallertau (4.5%)	1	5

### Yeast

W34-70	11.5g
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### Extras

Irish Moss	1 tsp for last 15 minutes of boil	
Dry Malt Extract	150g at bottling for priming	Or Dextrose

## Important Tips on Brewing

- Be extra cautious when it comes to cleaning! Once you have stopped boiling your wort everything that gets in contact with the beer **MUST** be sanitary.
- The temperature of your mash is **ABSOLUTELY CRITICAL**. Not being in the 150-155°F range can drastically affect your beer. Make sure you correct the temperature ASAP once all of the grain has been added to the mash.
- **Oxidization:** Airspace is always something to consider. When undergoing primary fermentation airspace is needed so that the beer can bubble up and ferment vigorously without leaking out of the container. The fermentation creates a layer of CO<sub>2</sub> that remains in the pail due to the airlock. Once primary fermentation is over and the lid has been opened, the layer of CO<sub>2</sub> dissipates and oxygen replaces it. At this point airspace can ruin your beer. When racking into carboys make sure they are filled to the top, or you blast CO<sub>2</sub> inside to prevent oxidization. Ask us for details on this!
- Before bottling, make sure you use a priming calculator (many can be found online) to verify the amount of sugar that needs to be added.

[Step by step Instructions on the other side](#) →→→

# Instructions

## Mashing -> converting the grain into a fermentable liquid.

*Note: The People's Lager really benefits from doing a two stage decoction to achieve maximum fermentability. The mashing step is a bit different from normal to achieve this. If you are not comfortable trying this out, mash for 60 minutes at 149°F instead, and then mash out at the standard 170°F.*

- 1) The grain will be mashed at 3 different temperatures throughout this process. Temperature #1 is 144-146°F, Temperature #2 is 153-156°F, and temperature #3 is 170°F (standard mash out temperature)
- 2) To get to **temperature #1**, bring 6 gallons of water in your brew pot to 154°F. This is our **strike temperature**. Turn off the heat to the pot. Wrap the muslin/nylon bag around the brew pot and slowly pour all the milled grains into the bag. Stir them in while adding to prevent clumps. The addition of grain should drop the temperature down to 144-146°F range. If it is too high, add a little cold water until it is in range. Hold this temperature for 30 minutes. Keep the heat off unless it dips below 144°F.
- 3) **Temperature #2** time, turn the heat back on and bring the wort up to 156°F. Hold it there for 30 more minutes, if it dips below 153°F turn the heat back on.
- 4) Lastly, **temperature #3**, turn the heat back on and bring the wort to 170°F, this is our mash out. Hold this temp for 10 minutes.
- 5) Time to remove the grain. Lift the bag full of grain out of the brew pot. Let the liquid in the bag dribble into your wort. Once that is done, put the bag inside of a brewing pail, or another empty pot. There will be about 4 gallons of wort in the brewpot, we need to get it to 6 gallons before we can begin the next stage.
- 6) Run warm water through the grains in the bag, aim for 170°F – let it run through the grains and add to the brewpot. Add until you reach 6 gallons.
  - a. **PSA:** It is natural to think that the grains need to be squeezed to get all of the liquid out of them, **DO NOT DO THIS.** Aggressively squeezing the grains will lead to tannin extraction and a doughy taste in your beer. Lightly pressing the bag is fine, but do not try to squeeze every last drop out.

## Boiling -> Hop addition time

- 1) **The People's Lager requires a 90 minute boil. 90 minute boils help cook off the DMS that lagers are known for.**
- 2) Bring 6 gallons of your wort to a rolling boil, set a timer for 90 minutes, continue to keep the wort boiling (212°F) and uncovered.
- 3) With 30 minutes left in the 90 minutes, add 1oz of Crystal. There is 60 minutes of boiling to go.
- 4) With 15 minutes left in the 90 minutes add 1oz of Hallertau, the Irish Moss and if you're using a wort chiller add that too.
- 5) With 5 minutes left, add 1oz of Hallertau. When the timer goes off take the beer off heat.
- 6) Now it's time to cool the beer down to 75°F (20-25°C) as quickly as possible.
  - a. We love using a wort chiller for this, it can get the beer down to temperature in 20-30 minutes. Otherwise, you can immerse the brew pot in an ice bath, or wait it out. The longer it takes, the greater the risk of infection

## Fermentation -> Turning the wort into beer

- 1) After the boil is done it is time to be extra careful in regards to sanitation. We recommend using a no-rinse sanitizer called Starsan. Mix ¼ tsp of it with water in a 500ml spray bottle. Before we touch any part of the beer we spray it with Starsan.
- 2) Transfer the cooled wort into your fermenting pail or carboy. Run it through a strainer to catch any hop or grain residue.
  - a. It is also **an important time to take a hydrometer reading.** It should be around 1.046 give or take a few points.
- 3) Your choice of fermentation vessel is important. During primary fermentation, it will bubble up quite a bit, you want to be sure there is airspace for it to work away. Otherwise the pressure of it will push out the airlock.
- 4) **Make sure the wort has been cooled to at least 25°C!!!** Adding yeast at a higher temperature will likely kill it.
- 5) Once the beer is in the fermenter, add the W34-70 yeast.
- 6) Temperature Control: Ideally, a lager should be fermented at 10°C for 10 days, the slowly ramped up to 21°C and held there for 3 days. We understand a lot of homebrewers can't do that, and this recipe was designed around that.
  - a. Ferment the beer as close to 10°C as you can. We made this beer at a fermentation temperature of 18°C and it turned out great. But still, aim for as close to 10°C as possible. Let it ferment undisturbed for 10 days. After 10 days move it somewhere around 18°C (if it is already at 18°C then leave it where it is.). Leave it at 18°C for two days.
- 7) After the 12 days have passed, move the beer to a room that is 20-22°C. This is to finish the fermentation, and to ensure any diacetyl has been fermented out. After two days at the higher temp, take a hydrometer reading. It should be somewhere between 1.008-1.011.
- 8) Rack the beer into a sterilized 5-gallon carboy. **It is important to fill the carboy to the top;** airspace can lead to oxidization within 2 days.
- 9) If possible, let the beer sit somewhere nice and cold (0-5°C) for 1-2 weeks. This will help with clarity and will give the beer a bit more crispness. If you are in no rush, the beer can safely sit and improve at that temp for up to 2 months.

## Bottling -> We're getting close to Beer Time now.

- 1) It's now been a couple of weeks since we first starting brewing. Rack the now fermented and clarified beer into your bucket.
- 2) At the same time, mix the priming sugar with 300ml of boiling water and add to the beer. Stir it in VERY gently.
- 3) Rack the beer into your bottles or growlers. Then, let them sit for 2 weeks at room temperature. Chill and enjoy!