

# WET HOP SUMMER

**Pale Ale – 5.5 Gal - OG 1.053 – FG 1.010 – ABV 5.6% - IBU 36 – SRM 4.7**

It's that time of year again, the hops that you have been trying to contain in your backyard are just about ready to be harvested. We've created a recipe that is an excellent template for using freshly harvested hops. A great balance of malty sweetness, that serves as a great backbone for your freshly picked hops to express themselves. We've paired the grain bill with 1 ounce of Magnum hops which will provide all of the bittering your recipe needs. and we've finished off the recipe with an expressive yeast from our friends over at Escarpment Labs. They recommend using English II, but Cali Ale and English I also make great alternatives.

If you're outside of wet hop season, this recipe still slaps – you just will need to use pellet hops at flameout instead of freshly picked hops.

This recipe is designed to complement almost every type of hop grown in Ontario. The Cascades, Centennials, Goldings, Nuggets and the myriad of other varieties that are grown in Ontario.

## Tips on Using Wet Hops

- Once hops are harvested, they need to either be used or packaged appropriately within 24 hours.
- The alpha acid on fresh hops is impossible to know. Which means relying on them to provide bitterness in your beer is not a good idea. Better to use them as late addition hops where their flavour is expressed. Using 1 ounce of a bittering hop at the start of the boil will provide all of the bitterness your beer needs and it lets your freshly picked hops provide flavour.
- We don't recommend dry hopping with fresh hops. They may have bacteria and/or bugs on them (often little spiders!). Adding the hops in the final couple of minutes will sterilize them and keep your beer safe while still adding flavour.

## Ingredients

### Grains

	Amount (lbs)
Canadian 2 Row	10.0
Crystal 20	0.25
Biscuit Malt	0.3
Honey Malt	0.25
Acidulated Malt	0.1

### Hops

	Amount (oz)	Hop Schedule
Magnum	1	40 minutes
Wet Hops ( <i>not included</i> )	6	0 Minutes

*If you don't have wet hops, feel free to use your choice of pellet hops here. For more pine/citrus we recommend Cascade. For more tropical fruit/juiciness we recommend hops like Citra, El Dorado, Strata.*

### Yeast

English Ale 2 – Escarpment Labs 1 Package

### Extras – Sold Separately

DME/Dextrose 150g (1/2 cup) at bottling for priming

## 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 150-155f range can drastically affect your beer. Make sure you correct the temperature ASAP once all the grain has been added to the mash.
- Always let your beer ferment for 10 days! Do not disturb it, do not open the lid. It is absolutely natural for the airlock to stop bubbling after a few days, it is still fermenting though.
- Oxidization: Airspace is always something to consider. When undergoing primary fermentation airspace is needed so that the beer can bubble up and ferment vigoursley without leaking out of the container. The fermentation creates a layer of CO2 that remains in the pail due to the airlock. Once primary fermentation is over, and the lid has been opened, the layer of CO2 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 CO2 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.

## Instructions

Mashing -> converting the grain into a fermentable liquid.

- 1) Bring 6 gallons of water in your brew pot to 155°F. This is our strike temperature. Turn off the heat to the pot.
- 2) 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 150-155°F.
- 3) We want to mash the grain at 154°F for 60 minutes. It is important to hold the temperature at 154°F. If the temperature rises above 155°F it hurts the fermentation, or if it dips below 149°F the beer might taste thin.
  - a. The first 15-30 minutes are essential for the success of your brew. The temperature HAS TO BE IN THE RANGE OF 150-155°F. Sometimes adding the grain to the strike water does not lower the temperature enough, in this case add a little bit of cold water to bring the temperature down. Cover the pot with your lid and let it sit.
  - b. Most brew pots will be able to maintain 154°F without adding heat for 20 minutes, we recommend checking the temperature every 15 minutes, and if it drops add more heat to bring it up. We recommend opening the lid and using a thermometer in the liquid.
- 4) After 60 mins, bring the temperature of the mashing grain up to 170°F & hold for 10 minutes. This is our mash out.
- 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 brew pot, 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 brew pot. 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 -> Sterilizing the wort time.

- 1) Bring 6 gallons of your wort to a rolling boil, and let it boil for 5 minutes, this is called the hot break. Start a 60-minute timer. Keep the wort boiling (212°F) and uncovered.
- 2) With 40 minutes left in the timer, add 1 ounce of Magnum hops. *This will give your beer about 35 IBUS, if you want a more bitter beer - you can add the ounce of hops at the start of the boil instead. This will make the beer more IPA like.*
- 3) With 15 minutes left in the timer, add 1 teaspoon of Irish moss, and if you have a wort chiller, we recommend adding it now, otherwise keep boiling.
- 4) When the timer finishes, turn the heat off and prepare to add hops.

Wet Hopping & Cooling

- 1) Fresh hops take up a lot more physical space than standard pellets, roughly 4 times the volume. Adding a lot of fresh hops to your brew can get messy pretty fast!
  - a. We tend to like putting all of the hops in a mesh/muslin bag. Easier to add and remove from the kettle!
  - b. You can toss hops directly into the pot, it just can be harder to strain and drain the wort once they are loosely in there.
- 2) When your timer goes off, add as many fresh hops as you'd like to the wort. Six ounces is a pretty safe number, but you could absolutely add more than that! Use whatever hops you have, do a blend, have fun!
- 3) Don't actively cool for 10 minutes, let the hops sit in the hot wort and extract the aromas and flavours from them.
- 4) After the 10 minutes are up start cooling the beer down to 25°C (77°F)
- 5) **Lots of flexibility here though**, if you want to add more hops, do it! Add another round when the beer is cooled down to 175°F. This adds even more aroma and flavour to the beer. Feel free to contact us with any questions!

## Fermentation -> Turning the wort into beer

- 1) After the boil is done it is time to be extra careful in regard to sanitation. We recommend using a no-rinse sanitizer called Starsan. Mix  $\frac{1}{4}$  tsp of it with water in a 500ml spray bottle. **Before we touch any part of the beer, we spray it with Starsan.**
- 2) If your wet hops are in a bag, remove that now and dispose/compost the hops.
- 3) Transfer the cooled wort into your fermenting pail or carboy. Run it through a strainer to catch any hop or grain residue. With all of the hop matter in this beer, it might take a while to strain through all the hops.
  - a. It is also good time to take a hydrometer reading. It should be around 1.053 give or take a few points.
- 4) Make sure the wort has been cooled to at least 25c!!! Adding yeast at a higher temperature will likely kill it.
- 5) Once the beer is in the fermenter, shake up and pour in the package of English II yeast.
- 6) Put the bung and airlock in the hole (make sure there is water filled up to the line in the airlock). If using a pail, make sure the lid is sealed tight.
- 7) Put the wort somewhere that is around 20-22°C and let it ferment undisturbed for 10 days. *You will see a lot of activity in the first couple of days and then it will slow down - resist the temptation to remove the lid, let the beer do its thing!*
- 8) After 10 days have passed, take a hydrometer reading. It should be somewhere between 1.010-1.014.
- 9) Lately, we have been of the opinion that secondary is an unnecessary step. Unless you are kegging, we recommend proceeding to the bottling stage. Clarification can occur in the bottle rather than in a carboy, and the risk of oxidization is greatly reduced.

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

- 1) Rack the now fermented beer into a 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.
  - a. Make sure to check out a priming calculator to verify the correct amount of sugar. Too much sugar and your beer will end up foamy, or even start blowing the caps off! Too little and the beer won't be fully carbonated.
- 3) Rack the beer into your bottles or growlers. Then, let them sit for 2-3 weeks at room temperature. Chill and enjoy!