



# Great Lakes Pale Ale

Our refreshingly hoppy Great Lakes Pale Ale. Finished with the most popular hop, Cascade.

**Original Gravity :** 1.057

**Final Gravity :** 1.014

**Color SRM :** 10.31

**Alcohol by Volume :** 5.48

**IBU :** 66.41

## Extract Recipe

K99-0064

*Procedure : Please read all the instructions before you begin brewing, to ensure you have all the ingredients and fully understand the process.*

<b>Clean</b>	It is important to thoroughly clean and sanitize all of your brewing equipment.	
<b>Steep</b>	Begin by heating 2.5 gallons of water in your brew pot. Add speciality grains and tie a knot at one end of the "Grain Bag" leaving room for the grains to be loose in the bag. Place the Grain Bag in the water. Slowly raise the temperature to 150° to 160°F (max temp.). Steep your grains at this temperature for 20 minutes. After 20 minutes, remove the "Grain Bag" from the pot. Do not squeeze the bag, just let the liquid drain from the bag into the pot. The water is now "Wort" at this point.	<b>Grains :</b> <b>0.5 lbs Cara Pils</b> <b>0.25 lbs Crystal Malt (40 °L)</b>

<b>Fermentables &amp; Start of Boil - Begin 60 minutes of boiling</b>	Bring the "Wort" to a boil. It should be a rolling boil, but be careful to avoid a "Boil Over". Once you achieved a boil, remove the brew pot from the heat source.  It is time to add the fermentables :  Stir the extracts, and fermentables into the wort until it has all dissolved. It is important to make sure none of the extracts or fermentables are sitting on the bottom of the brew pot, as it will scorch when returned to the heat source. Return the wort to a rolling boil and follow Hop Schedule :	<b>Fermentables :</b> <b>6 lbs Liquid Malt Extract Pale</b> <b>1 lbs Dry Malt Extract Light</b>
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Hop & Additive Schedule	Ounces	Hop/Additives	Hop Addition	Boil Time (minutes)
	1	10 HBU Pack	Boil/Bittering	60
	1	5 HBU Pack	Boil/Bittering	60
	1	oz Cascade Hop Pellets	Aroma	5

<b>Cooling the wort and preparing the fermentor</b>	Once the 60 minute boil is over, it is time to cool the wort. There are many ways to cool a wort, the AIH recommendation is a wort chiller. Cool the wort to approximately 100° F as quickly as possible.  The fermenting equipment needs to be sanitized. This can be done while the wort is cooling. Be sure to clean and sanitize the fermenters, airlock, lid, hose, hydrometer and test jar and rubber stopper. Anything that may come into contact with the wort should be sanitary.  Transfer the wort into the primary fermenting vessel, then top off with cold water until a total of 5.125 gallons is in the primary fermenter. Aerate the wort at this point. This can be accomplished with an aeration stone or simply by rocking the fermenter back and forth once the lid is in place.
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<b>Take the reading</b>	This is the time that you will want to take a specific gravity reading. Use a hydrometer and record the reading.
<b>Pitch the yeast</b>	Once the wort is cooled to 78° F, it is safe to pitch the yeast. Pitch according the proper procedures of the type of yeast you have. Seal the fermenter tight. Attach the sanitized airlock and stopper. Fill the airlock with water. Fermentation should begin within 24 - 48 hours. "Do Not Disturb" until fermentation is complete.  During the fermentation process, CO2 will begin to escape the airlock. Follow manufacturer's pitch instructions and recommended temperature for fermentation.

### Suggested Yeast :

**California Ale Yeast 82-001**  
**American Ale 67-1056**  
**US-05 Safale**

<b>Fermenting - Primary</b>	Once the Primary fermentation is complete, approximately 1 to 2 weeks, rack the beer into the secondary fermenter.
<b>Fermenting - Secondary</b>	If the recipe calls for Dry Hops or additives that need to go into the secondary, add these now. The Secondary Fermentation should be complete within 1 to 2 weeks.
<b>Bottling</b>	Siphon finished beer into a bottling bucket. If the recipe calls for any Bottling Additives to be added to the bottling bucket, add them now.  At this point, follow bottling or kegging procedures....Cheers!