



# Gluten Free Cascade Honey Pale Ale

Batch size- 22 Lt

Total Bitterness - 22 IBU'S

## Ingredients:

- 2.8 kg Brewers Choice Liquid Sorghum Extract
- 0.5 kg Honey
- 16g Cascade Hop pellets - For Bittering (60 min boil)  
(6.7%AA -15 IBU)
- 15g Cascade Hop pellets - For Flavour (15 min boil)  
(6.7 % AA - 7IBU)
- 15g Cascade Hop pellets - For Aroma (0 min boil)  
(6.7 % AA - 0 IBU)
- 1x Whirlfloc tablet
- 1x Safale US05 Dried Ale Yeast, 1 x Yeast Nutirent
- 10lt Fridge cold water
- 1 x Finings Packet

## Equipment Needed:

- Standard Beer Brewing Kit
- 12Lt (min) Pot for boiling

## How to:

In a large pot, add approx 1kg **Liquid Sorghum Extract** and 8 litres of hot water. Mix well until the extract is totally dissolved. Bring this liquid to the boil.

If you are using a lid on the pot it will come up to the boil faster. Use caution when the liquid starts to boil as it will foam up. If the lid is on it may overflow. Remove the lid, give the liquid a stir and lower the heat if needed. Allow the liquid to boil for a few minutes to settle any foaming before adding any hops.

After the liquid has been boiling for a few minutes, add **16g Cascade Hop pellets** to the pot and boil for a further 60 minutes. Adding the hops to the boil will cause some foaming. Stir the pot if required.

Record the time you added the bittering hops in the brackets below, so you can also calculate when you need to finish the boil (60 minutes from this point will be the boil finish time). Bittering Hops added (        )

At 15 minutes from the end of boil, add **15g Cascade Hop pellets** (to add flavour) and 1 **Whirlfloc tablet** to the pot. Flavour Hops and Whirlfloc tablet added (        )

After 60 minutes boiling, turn off heat and add **15g Cascade Hop pellets** (to add Aroma). Boil finished and Aroma Hops added (        )

Add the remaining **Sorghum** and **Honey** to the pot and stir well until all dissolved.

Cool the hot liquid by placing the pot with lid on in a sink of cold water for about 30 minutes. Change the water in the sink or add some ice to the water to help speed up the cooling process.

Add the cooled wort and fridge-cold water to fermenter. Top up to 22lt with more cold water and stir vigorously.

Sprinkle the **Yeast** and **Yeast Nutrient** on the surface of the liquid, stir gently, and seal fermenter. Ferment at 16-20°C for best results\*.

When the bubbles in the airlock slow down to less than one per minute, or you believe the fermentation has finished, take a hydrometer reading from the fermenter. Wait 24-48 hours and take another reading. If both readings are the same, your beer has completed fermentation. (Approx. Finishing Gravity is 1018)

In a sterilised mug/jug, pour in 250ml hot water, add the sachet of finings and stir well until dissolved. Pour this mixture into your fermenter giving a very gentle stir. The finings will help settle the yeast and improve the clarity of the beer\*\*

To bottle, sterilise bottles, caps, bottling tube and tap. Attach bottling tube to tap, fill bottles, add sugar (2 teaspoons per 750ml, 1 teaspoon per 375ml bottle) and cap. Place in a cool, dark place and leave for 3-4 weeks\*\*\*. Open and enjoy!

\* To keep fermenter cool, place fermenter in a container of water with a wet towel wrapped around it. Add frozen bottles of ice if necessary. For optimum results, use a **Brewers Choice Brewing Thermostat** and old fridge to brew at constant temperature.

\*\*Sorghum Extract produces considerable sediment. To reduce sediment, the beer can also be racked into another container and left for a week before bottling. Use a piece of hose run from the tap to the bottom of the second container - do not pour the beer in from the top as your beer will oxidise and its flavour will be affected. Seal the container and refrigerate if possible. After one week (or longer), attach bottling tube to container tap and fill bottles as above.

\*\*\* Sorghum may take longer to mature and carbonate than regular home brews. Allow up to one month for better beer.

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