

# MAPUNAPUNA PALE ALE

OG: 1.062; FG: 1.010; IBU: 40; SRM: 8; ABV: 5.9%

GRAINS USED:       **3/4 lb. Caramel 10°L**  
                          **1/2 lb. Honey Malt**  
                          **1/4 lb. White Wheat**

EXTRACTS USED:   **7 lb Extra Light Pale LME (Divided)**

1. Fill your pot with 2 - 3 gallons of cool water (as much as your pot will comfortably hold at a full boil). Remove 2 cups of water and set aside for rinsing the grains.
2. **Add 1 tsp of Gypsum** to the water and bring it to 165°. Once the water reaches the target temperature, put the grain bag in the pot, dipping the bag a few times to ensure that all the grains get wet. Turn off the burner or remove the pot from the heat source, cover and steep for 30 minutes. **Do not BOIL THE GRAINS** When 30 minutes are up, remove the grains from the water, rinse with the 2 cups of 165° water, drain **without squeezing** the grain bag.
3. Open the first extract bag and cut off some of the excess top of the bag and carefully pour the extract into the pot. Stir the extract until it dissolves. **To avoid scorching the extract** Do not return the pot to heat until all the malt extract syrup has been added and dissolved. Once the extract is thoroughly dissolved, turn the heat back on and bring the mixture (“wort”) to a boil. **WATCH FOR BOIL OVERS WHEN ADDING HOPS**
4. Add HOPS according to the schedule below:  
**3/4 oz. of Belma hops** at **60** minutes (beginning of boil).  
**1/4 oz. of Belma hops** at **30** minutes.  
**1 capsule of White Labs Servomyces** at **15** minutes.  
**1/2 oz. of Belma hops** at **10** minutes.  
**2<sup>nd</sup> bag of LME** at **0** minutes (turn off heat, add extract, stir until dissolved and steep for 10 minutes).  
**1/2 oz. of Belma hops** in secondary fermenter (5-7 days)
5. **Turn off heat and cool the wort. It is critical that you maintain sanitization as the wort cools.** When wort is at or below 80 degrees, carefully pour wort into a sanitized fermenter and top off with cool water to bring total volume to 5 gallons. Aerate wort well before pitching.
  - a. Use **ONE** of the following yeast options:
  - b. **DRY YEAST: 1 pkg BRY-97(preferred) or SAFALE S-05**
  - c. Rehydrate the yeast following the directions on the package. Ferment between 65-75°F.
  - d. **LIQUID YEAST: White Labs 001, 090**
  - e. Follow the directions printed on the vial. Sterilize the outside of the package before opening. Ferment between 65-75°F.
6. Attach your airlock and fill the airlock halfway with cooled boiled water. Put fermenter in a cool, dark place to begin fermenting. **NOTE: A water bath can be used ensure the fermentation temperature stays close to 70°F.** Use **3 or 4 16oz frozen water bottles, changing them out at least twice a day during the fermentation.** Fermentation will be complete in 10-14 days.

7. Bring two cups of water and 3/4 cup Corn Sugar to a boil and simmer for 10 minutes or microwave for 2 minutes. Add the sugar solution to your sanitized bottling bucket and rack (siphon) the beer onto the sugar solution. You are ready to bottle!

**CAUTION: If finished volume is less than 5 gal, use 1 TBS less corn sugar per half gal**

CHECKLIST:

YEAST AT ROOM TEMPERATURE

CLEAN EQUIPMENT

ICE

SANITIZE

DATE/TIME START: \_\_\_\_\_ DATE TO 2<sup>ND</sup> \_\_\_\_\_ BOTTLE/KEG \_\_\_\_\_

Original Gravity \_\_\_\_\_ Specific Gravity \_\_\_\_\_ Final Gravity \_\_\_\_\_

Wort Temperature at Pitch: \_\_\_\_\_

Fermentation Area Temperature: \_\_\_\_\_

NOTES:

DATE SERVED/COMMENTS: