



## Midwest Homebrewing Supply

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## Amarillo Pale Ale

### Recipe for 5 Gallons

SG: 1.050-1.054

FG: 1.012-1.014

IBUs ≈ 44.0

**1. Inspection and Yeast Evaluation** Make sure you have all of the ingredients listed on the side of the box. While we can replace missing parts before you brew, **we cannot replace kits once you've brewed.** If you are brewing with liquid yeast, be sure to evaluate their health before brewing because once again, we can replace yeast but **not beer kits.** If you are working with Wyeast strains be sure to allow 1-2 days before brewing to evaluate their viability. If the pack swells then the yeast are happy and you can brew. If it does not swell after 2 days, do not brew - contact us. For White Labs strains, it is recommended to do a starter to evaluate their health, especially if the yeast were shipped during the summer months. A less reliable method would be to shake the vial once it's warmed up, you should notice little CO<sub>2</sub> bubbles (a sign of fermentation) once they warm up and start consuming the nutrient available. Yeast damage happens and we try to ship yeast as reliably as possible, but it is up to you as a brewer to determine the viability before brewing.

**2. Cleaning and Sanitation** Be sure to inspect all equipment for any debris or films- you can't sanitize a dirty fermenter! PBW or B-Brite both work great for cleaning your equipment. Clean your primary fermenter with a sponge. Don't use any abrasive pads that could scratch the inside of your bucket, these scratches may hold bacteria that could affect future batches. Do not use soap; it can ruin the head of your beer. One Step or Star San sanitizers are recommended to ensure a sanitary environment without the need of rinsing. We recommend using a separate container such as a bucket or another pot to soak your smaller equipment during the appropriate stages of brewing, fermenting and bottling. Remember: After the boil, everything that comes into contact with the wort needs to be sanitized.

**3. Steeping Grains** If you did not have your **grains** crushed in our store then use a rolling pin or an empty beer bottle to lightly crush the grains. Next, put the crushed grains into the **muslin boiling bag**. Add a minimum 1.5 -2 gallons of tap water to your pot. If you have a larger pot and can boil a larger volume do so. Boiling a larger volume will result in better hop utilization, less darkening of the wort and better tasting beer. *REMEMBER: Boilovers are messy – be sure to leave a gallon or two of headspace in the kettle.* Turn your heat to high and let the temp come up to about 155°F. Place the muslin bag with grains into the kettle and let steep at ≈ 155°F for 15-30 minutes. You'll need a **thermometer** for this stage. If you don't have a thermometer don't worry, just **make sure you don't boil the grains.** After steeping, remove grains, give the bag a gentle squeeze and either discard the grain bag or rinse and save for future use. Crank the heat up to high and bring the steeping water up to a boil and then remove from heat.

**4. The Boil** With the kettle removed from the burner, add the **malt extract** (some kits contain liquid (LME), dry (DME) or both). Make sure to stir the water so the malt extract does not scorch on the bottom of your pot. When the extract is fully dissolved, return the kettle to the burner. As soon as you see a boiling bubble add ½ **oz Columbus** bittering hops and boil 60 minutes for optimal hop utilization and bittering. Hops can be added directly to the kettle or placed in a nylon boiling bag (Catalog #6300) in order to keep hop sediment out of the fermenter. **DO NOT LEAVE YOUR POT UNATTENDED!** Boil-overs are messy and should be cleaned up immediately. After boiling for 40 minutes add **1 oz Amarillo** flavor hops. Boil for 20 minutes more, add **1 oz Amarillo** and remove the pot from the burner.

*\*\*Check out our FAQ at [www.Midwestsupplies.com](http://www.Midwestsupplies.com) for some tips on improving your beer with late extract additions, full boils and alternate steeping methods.\*\*\**

## 5. Cooling and Aerating the Wort

Methods of cooling wort:

1. You can set your brew kettle (sanitized top on, if available) in a sink full of ice stirring the wort with a sanitized spoon every 15 minutes.
2. You can use ice as part of your top up water (8 lbs. of ice is approximately 1 gallon of water)
3. **THE BEST:** Use a wort chiller immediately after boiling. The faster you cool the wort and add the yeast, the less chance you'll have of any contamination. The temperature must be below 80 before adding the yeast. \*\*\*A water saving tip: Instead of running the cooling water down the drain, collect it in a clean bucket and add it to your washing machine for a load of laundry\*\*\*

Pour the cooled wort (Pronounced "WERT") into the primary fermenter and top up with water to just over the **5 gallon mark**. Make sure you have cooled your wort below 80 degrees. If you want to take a hydrometer reading, do it now. Do not return any samples back to the fermenter. At this point you need to **aerate the wort**. You can stir vigorously, pour back and forth between two sanitized buckets or try one of our aeration systems to inject oxygen into the wort. Yeast need oxygen in order to do their job, so try not to skip this step.

## 6. Fermentation

If you are using dry yeast, you can re-hydrate the yeast in luke-warm water (90-100 degrees), let it stand for 10 minutes and pour into the wort, or you can just sprinkle the dry yeast over the top of the beer. If you are using liquid yeast, follow the directions on the packet. Approximately 1-3 days after adding the yeast you should start to notice a healthy fermentation taking place. A head of foam (called krausen) will have formed and CO<sub>2</sub> should be bubbling out of the airlock (half filled with water!) If your fermentation is over active and comes out of the fermenter, clean it up using a towel soaked in sanitizer. After 5-7 days of fermentation, transfer into a glass carboy. If you are using a single stage fermenting system, then leave the beer in the fermenter for two weeks total.

You can be sure that the yeast is done by taking a hydrometer reading three days in a row and getting the same reading, a gradual lowering of the reading will indicate a slower or unfinished fermentation. If your reading finishes high (i.e. the beer tastes too sweet) then check out our FAQ for tips on increasing your attenuation. Be patient. A good rule of thumb is to allow 2 weeks for fermentation and every thing will be fine. Dry yeast has been known to ferment very fast while some liquid strains can take longer than expected. Use your hydrometer to tell you where your beer is at, it is your window into what is going on in the fermenter.

## 7. Bottling

At bottling time, heat 1 cup of water and add 3/4c (5oz.) of corn sugar provided in the kit. Bring the solution to a slow boil for five minutes, then cover with a sanitized lid and let cool. Sanitize your bottling bucket, tubing, bottle filler, caps and bottles. You will need to sanitize 48 - 54 twelve oz. bottles, or 24-28 twenty-two oz. bottles. The dishwasher may be used for sanitizing the bottles by using the heat of the dry cycle (don't use any soap or sanitizer in the dishwasher). Sanitize caps in a sanitation solution. After everything is sanitized, add the corn sugar mix to the bottling bucket, siphon beer from your fermenter into your bottling bucket and fill the bottles using a bottle filler. Cap your bottles and you're done. Store your beer in a cool (60-70 degrees), dark place for 2 to 4 weeks (not on a cool basement floor in winter). If there is no carbonation, get the beer in a warmer location, swirl each bottle to rouse any settled yeast and test again in a couple of week. ENJOY!!

***Call the Midwest Experts With any questions on our advice line!***

### Quick Instructions

1. Steep crushed grains for 10-30 minutes at 155 degrees.
2. Add malt extract while brew pot is off the burner.
3. Bring to a boil and add ½ oz **Columbus** bittering hops. (60 Minutes)
4. Add 1 oz **Amarillo** flavor hops for the last 20 minutes.
5. Add 1 oz **Amarillo** aroma hops and remove from heat.
6. Cool, top up to 5 gallon mark and add yeast.
7. Ferment and bottle. (2 stage fermentation is recommended)