

# DUCK DUCK GOSE

## ALL-GRAIN

Sour. Salty. Citrus and floral aromatics. Sounds odd, right? Well, history would say “no!”. The Gose style has its roots in Germany over 500 years ago, and Duck Duck Gose is our take on the nearly lost classic. Tapped on its firm, brilliantly white foam head with hopes of not being the “goose”, Duck Duck Gose is brewed with lactobacillus for a pleasant tart sensation, while additions of salt and coriander brings this recipe full-circle to complete the intriguing sensory perception that is Gose. Tap into your inner child and play a game of Duck Duck Gose with us.

**Note: The kettle souring method can take up to three days, so plan your time accordingly.**

**O.G:** 1.047

**BREW TIME 6 WEEKS:** 2 WEEKS PRIMARY | 2 WEEKS SECONDARY | 2 WEEKS BOTTLE CONDITIONING



### KIT INVENTORY

#### MASH INGREDIENTS

- 4 lbs Rahr White Wheat
- 2.5 lbs Weyermann Barke Pilsner Malt
- 2 lbs Rahr Unmalted Wheat
- 1 lb Weyermann Barke Munich Malt

#### BOIL ADDITIONS & TIMES

- 1 oz Kent Golding (60 min)
- 0.5 oz Coriander (5 min)
- 0.5 oz Non-Iodized Flaked Salt (Packaging - see step 19)

#### YEAST & OTHER CULTURES

##### Lactobacillus:

- Omega OYL- 605 Lactobacillus Blend. Optimum temp: 75°-95°F

##### Dry Yeast:

- Fermentis Safale K- 97. Optimum temp: 59°- 68°F

##### Liquid Yeast Options:

- Imperial Yeast G02 Kaiser. Optimum temp: 56°- 65°F
- Omega Yeast OYL- 001 Alt. Optimum temp: 55°- 68°F

#### PRIMING SUGAR

- 5 oz Priming Sugar (save for Bottling Day)

### READ ALL INSTRUCTIONS BEFORE STARTING

#### YOU WILL NEED:

- Homebrewing starter kit for brewing 5 gallon batches
- All-grain equipment kit with a mash tun and hot liquor tank
- Boiling kettle of at least 8 gallons capacity with lid
- Optional - 5 gallon carboy, with bung and airlock, to use as a secondary fermenter. NOTE: You may skip the secondary fermentation and add an additional 2 weeks to primary fermentation before bottling
- Approximately two cases of either 12 oz. or 22 oz. pry-off style beer bottles

### A FEW HOURS BEFORE BREW DAY

Remove the liquid lactobacillus package from the refrigerator, and leave it in a warm place (~70°F) to come to pitching temperature, about 3 hours.

### MASH SCHEDULE: SINGLE INFUSION

If you are new to all-grain brewing, we suggest starting with 1.5 quarts of water per pound of grain for the strike water volume. This mash thickness can be adjusted for future brews as you become more comfortable with your equipment.

- Saccharification Rest: 152° F for 60 minutes
- Mashout: 170° F for 10 minutes (optional) - to raise the temperature for mashout, gently apply direct heat while stirring well, or add near boiling water until the target temperature is reached.

Prepare sparge water in your hot liquor tank at a rate of 2 quarts per pound of grain in the recipe, and perform a fly sparge until you have gathered your pre-boil volume (6-7 gallons) in your boil kettle. The sparge should take about an hour for optimal extraction efficiency. You should end up with extra sparge water in your hot liquor tank, you can use this hot water for cleaning later on.

## AFTER THE MASH

1. Once the pre-boil volume has been collected, bring the wort to a boil for 5 minutes to sanitize it, then rapidly chill to 75°-95°F.
2. Once cooled, add the lactobacillus and cover the kettle with a sanitized lid.
3. Let the wort with the lactobacillus rest at the same temperature in the boil kettle for up to three days. You can periodically taste the wort by drawing a sample with a sanitized utensil to gauge the level of sourness. Once the sourness is pleasing to you, proceed to the next step. If you are the science type, use a pH meter to determine when the lactobacillus is done. For a mild sourness, aim for a pH of 3.7 - 3.9, or for a pronounced tartness, aim for a pH of 3.2 - 3.4.

## BREWING - POST SOURING

4. Once the wort is soured, bring it back to a boil to kill any lactobacillus bacteria present. Once boiling, add the 1 oz Kent Golding hops and boil for a total of 60 minutes.
5. Coarsely crush the coriander seed with a mortar and pestle, coffee grinder or similar. Add to the boil with 5 minutes remaining.
6. When the 60 minute boil is finished, rapidly chill the wort to about 68° - 75°F.
7. Sanitize fermenting equipment and yeast pack: While the wort cools, sanitize the fermenting equipment - fermenter, lid or stopper, airlock, funnel, etc - along with the yeast packet.
8. Transfer your cooled wort into the primary fermentation vessel using a valve on the boil kettle, by siphoning from the boil kettle, or pouring the wort into the fermenter.
9. Aerate the wort. Seal the fermenter and rock back and forth to splash for a few minutes, or use an aeration system and diffusion stone.
10. Measure specific gravity of the wort with a hydrometer and record in the "BREWER'S NOTES" section. Target gravity for this kit is 1.047.
11. Add your yeast once the temperature of the wort is between 68° - 75°F. Sanitize and open the yeast pack and carefully pour the contents into the primary fermenter.
12. Seal the fermenter. Add approximately 1 tablespoon of sanitizer or clean water to the sanitized airlock. Insert the airlock into the rubber stopper or bucket lid and seal the fermenter.
13. Move the fermenter to a warm, dark, quiet spot until fermentation begins.

At Northern Brewer, we've always got your back. Our Brewmasters are available 7 days a week to help you brew your very best, and it doesn't end until you're completely happy with your latest batch...and looking forward to the next one. We'll never let you fail. Guaranteed.

## PRIMARY FERMENTATION

14. Active fermentation begins. Within approximately 48 hours of Brewing Day, active fermentation will begin – there will be a cap of foam on the surface of the beer, the specific gravity as measured with a hydrometer will drop steadily, and you may see bubbles come through the fermentation lock. The optimum fermentation temperature for this beer is 66° - 70°F, move the fermenter to a warmer or cooler spot as needed.
15. Active fermentation ends. Approximately one to two weeks after brewing day, active fermentation will end. When the cap of foam falls back into the new beer, bubbling in the air lock slows down or stops, and the specific gravity as measured with a hydrometer is stable, proceed to the next step.
16. Optional - Transfer beer to secondary fermenter. Sanitize siphoning equipment and an airlock and carboy bung or stopper. Siphon the beer from the primary fermenter into the secondary. If you do not have a secondary fermenter, simply leave the beer in the primary fermenter for an additional two weeks.

## SECONDARY FERMENTATION - OPTIONAL\*

17. Allow the beer to condition in the secondary fermenter for 2-4 weeks before proceeding to the next step. Timing is now somewhat flexible. \*See the "YOU WILL NEED" section and Step 16.

## BOTTLING DAY - ABOUT 1 MONTH AFTER BREWING DAY

18. Sanitize siphoning and bottling equipment.
19. Mix a priming solution (a measured amount of sugar dissolved in water to carbonate the bottled beer). Use the following amounts, depending on which type of sugar you will use:
  - Corn sugar (dextrose) 2/3 cup in 16 oz water.
  - Table sugar (sucrose) 5/8 cup in 16 oz water.Add the 0.5 oz non-iodized flaked salt and bring the solution to a boil and pour into the bottling bucket.
20. Siphon beer into bottling bucket and mix with priming solution. Stir gently to mix—don't splash.
21. Fill and cap bottles.

## CONDITIONING - ABOUT 2 WEEKS AFTER BOTTLING DAY

22. Condition bottles at room temperature for 2 weeks. After this point, the bottles can be stored cool or cold.
23. Serving. Pour into a clean glass, being careful to leave the layer of sediment at the bottom of the bottle. Cheers!

## BREWER'S NOTES