

Fermentation Notes

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Chapter 1

Introduction

A place to archive / backup my fermentation notes while as an added benefit learning a little bit about R, RStudio, bookdown, version control, and hosting a site on GitHub

- Resources:
 - Getting started with Git and R
 - Bookdown tutorial

Note: entries before May 2022 weren't kept well and may lack enough information to be reproducible. Remedying this moving forward is a major goal of these notes.

Chapter 2

Kombucha

2.1 Grapefruit

Bulk Ferment

Sunday, 23 May, 2021

Scoby and starter donated from Daniella.

Method: <https://food52.com/blog/13548-my-adventures-in-brewing-kombucha-how-you-can-do-it-too>

- 6 cups boiled, then steeped with 8 bags of black tea, 20 minutes
- 1 cup of sugar dissolved in hot water
- 6 cups cold added + 1 more when added to crock
- Added Daniela's mother and the starter it came in
- Covered with tea towel

Second Ferment

Wednesday, 2 June, 2021

- Bottled
- Output: 5 ~16 oz bottles
- Flavor: all 5 (2 tbsp) ~25 ml grapefruit juice

2.2 Ginger and Honey

Bulk Ferment

Wednesday, 2 June, 2021

- Made a new batch using same instructions as listed above; kept the mother in the crock and just added new tea to it

Second Ferment

Saturday, June 12, 2021

- Bottled second batch
- Output: 5 bottles
- Flavor: ginger (~1in worth of matchsticks) + ~.5 teaspoon honey

2.3 Grapefruit

Bulk Ferment

Saturday, June 12, 2021

- Made another batch, same instructions

Second Ferment

- ~30 ml grapefruit juice added to each bottle

2.4 Grapefruit and Orange

Bulk Ferment

Tuesday, June 22, 2021

Made another batch, same method

Second Ferment

Tuesday, June 27, 2021

- Flavor for second ferment was one grapefruit and one orange.
- ~25 ml in each
- Did a plastic bottle for first time; had meant to leave more air.
- Next time fill to base of tapered neck.

2.5 Watermelon, Lime, and Mint

Bulk Ferment

Sunday, June 27, 2021

Same recipe, a little extra water.

Second Ferment

Tuesday, July 6, 2021

- Watermelon, mint, and lime.
- Juiced half a watermelon.
- Muddled about a dozen mint leaves with a little sugar and splash of water.
- Added juice of two limes
- ~40-50 ml of this juice added to each bottle, filled with kombucha
- Used old kirkland kombucha bottles from a friend and one plastic coke bottle as a carbonation gauge.

2.6 Peach and Ginger

Bulk Ferment

Tuesday, July 6, 2021

Brewed new batch as usual. Added one 16 oz bottle of water to fill the crock.

Plastic bottle was hard after a few days, put in fridge. Could have let it get harder, as bottles didn't have much carbonation, but gained some in fridge (we were gone July 11-16).

Second Ferment

Sunday, July 18, 2021

- 12 day first ferment
- Peaches and ginger
- One plastic bottle as carbonation gauge

2.7 Peach

Bulk Ferment

Sunday, July 18, 2021

No notes.

Second Ferment

Flavored with just peach. Opinion: ginger and peach is better.

2.8 Strawberry Kiwi

Bulk Ferment

No dates / notes

Second Ferment

Sunday August 29, 2021

Flavor: **strawberry kiwi**, Cara and Arlo liked best yet.

2.9 Nectarine and Blueberry

Bulk Ferment

Sunday August 29, 2021

No notes.

Second Ferment

Saturday September 18, 2021

Nectarine and frozen blackberries

2.10 Ginger and Mint

Bulk Ferment

Saturday September 18, 2021

Second Ferment

Ginger and mint

2.11 Apple and Ginger?

No date / notes

Second Ferment

Apple and ginger maybe?

2.12 Mystery?

Bulk Ferment

Sunday October 31, 2021

Second Ferment

No date

Ginger and lemon

2.13 Pear and Ginger

Bulk Ferment

No date / notes

Left for a few months. Checked periodically to ensure nothing looked off.

Second Ferment

Sunday January 23, 2022

Had reduced to <4 bottles during F1, trying f2 for science. One plastic bottle for carbonation gauge.

- Flavor: pear and ginger
 - 1 cc size cubes
 - Sugar: 1/2 tsp in each bottle

Unknown date

Update: none carbonated, f2 for a couple of weeks at room temp. Tasted fine though, maybe a bit more tart than usual.

2.14 Strawberry

Bulk Ferment

Sunday January 23, 2022

Second Ferment

May 17, 2022

Again let sit for several months.

- Quantity: 4 soda bottles filled to top of label
- Flavor: about 12 strawberries and a sizable scoop full of sugar
 - Macerated the strawberries in the sugar. ~60 ml per bottle

May 26, 2022

All four soda bottles firm enough to not give, refrigerated

- Thoughts: a bit too sweet

2.15 Contam?!

Bulk Ferment

Tuesday, May 17

Standard method, no notes taken. Scoby was getting thick, so split some layers off of the top and bottom and kept the middle.

Update

June 2, 2022

Checking in on it, looked like there was some mold growing on top layer of scoby. Scared me enough to compost it.

Chapter 3

Ginger Beer

3.1 Batch 1

Bug

Early September 2021

Started a ginger bug, chlorine evaporated water from starter sourdough jug. Arbitrary amount of grated ginger in small amount of initial water. After about a week added more ginger and a bit of sugar. Started shaking it, got bubbly.

Bulk Ferment

September 18 2021

- Cut up a few chunks of skinned ginger and simmered in 2 qts of tap water for ~15 minutes.
- Strained out ginger solids
- Added 2 cups sugar, stirred too dissolve
- Added 2 qts of tap and let cool
- Added strained ginger bug
- F1 in cloth covered crock

Second Ferment

No notes, but it was pretty good. Definitely different than commercial versions.

3.2 Batch 2

Bug

May 24-ish, 2022

Started bug with occasional feedings of arbitrary amounts. Grew vigorous after a few days, but ran out of ginger mid-covid quarantine so had to wait for a grocery pick up and bug grew stagnant. Revived with a couple (two) feedings, noticed a *few* bubbles on May 31st. All feedings used de-chlorinated water left out overnight and ginger (skin included) grated on the fine side of a box grater.

Bulk Ferment

May 31, 2022

Loosely followed The Art of Fermentation method.

- Simmered 2 quarts of water with ~5 in of coarsely grated ginger (skin included, not sure if appropriate to have left it on) for about 15 minutes
- Dissolved ~~2-cups~~ 400 g sugar
- Added 2 quarts cool water to dilute, tasted and let cool to room temp for several hours (very warm day)
- Added bug (slightly less than ~2 cups)
- Mixed then strained through fine mesh sieve

Output

Split perfectly between a half-gallon mason jar and a 2 liter kliner jar.