A photograph of a sunset over the ocean. The sun is low on the horizon, creating a bright orange and yellow glow. In the foreground, three people are sitting on a sandy beach, looking out at the water. They are wearing blue t-shirts. The text "This is our first year" is visible on the back of the t-shirts. The ocean has small waves breaking near the shore. The sky is a mix of orange, yellow, and blue.

Fermenting Mead with Ale Yeast (at NHC - 2015, San Diego) (Sweet!)



GOLDEN COAST MEAD



16.9 FL OZ
500 ML

Alc. 12%
by Vol.
Gluten Free

California Oak

A California Wildflower Honey Mead,
fermented on American Oak chips.
Over 600,000 pollinations in every bottle.

CA Wildflower Honey

San Diego Spring Water

American Oak

1/6bbl/keg
2-3oz taster
2 Tastings for everyone



Mead
A glorious thing to do with honey

History of Mead



Mead in Culture





GOLDEN COAST MEAD



16.9 FL OZ
500 ML

Alc. 12%
by Vol.
Gluten Free

California Oak

A California Wildflower Honey Mead,
fermented on American Oak chips.
Over 600,000 pollinations in every bottle.

CA Wildflower Honey

San Diego Spring Water

American Oak

Safale 05

CA Wildflower Honey

San Diego Spring Water

French Oak

Safale 05



**A California Wildflower Honey Mead fermented
on French Oak chips.**

Over 600,000 pollinations in every bottle.



GOLDEN COAST MEAD



16.9 FL OZ
500 ML

Alc. 12%
by Vol.
Gluten Free

Orange Blossom

A California Orange Blossom Honey Mead
Over 600,000 pollinations in every bottle.

CA Wildflower Honey

San Diego Spring Water

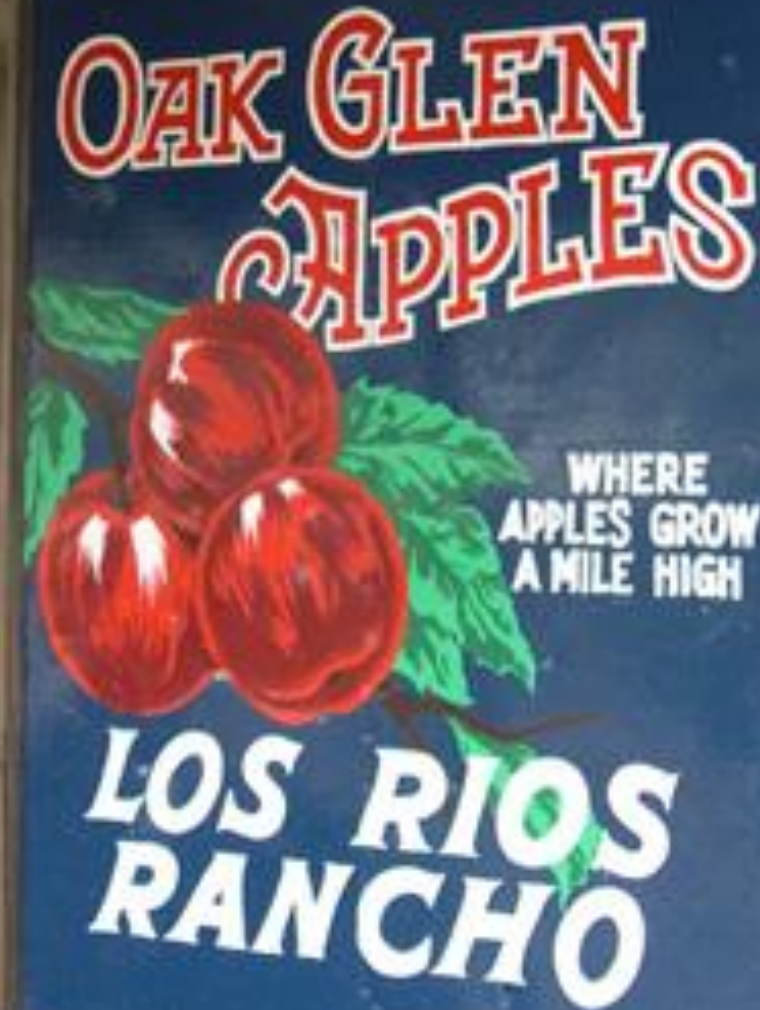
American Oak

Safale 05

CA Wildflower Honey
San Diego Spring Water
American Oak
Safale 05
And
Wild Bacteria Culture

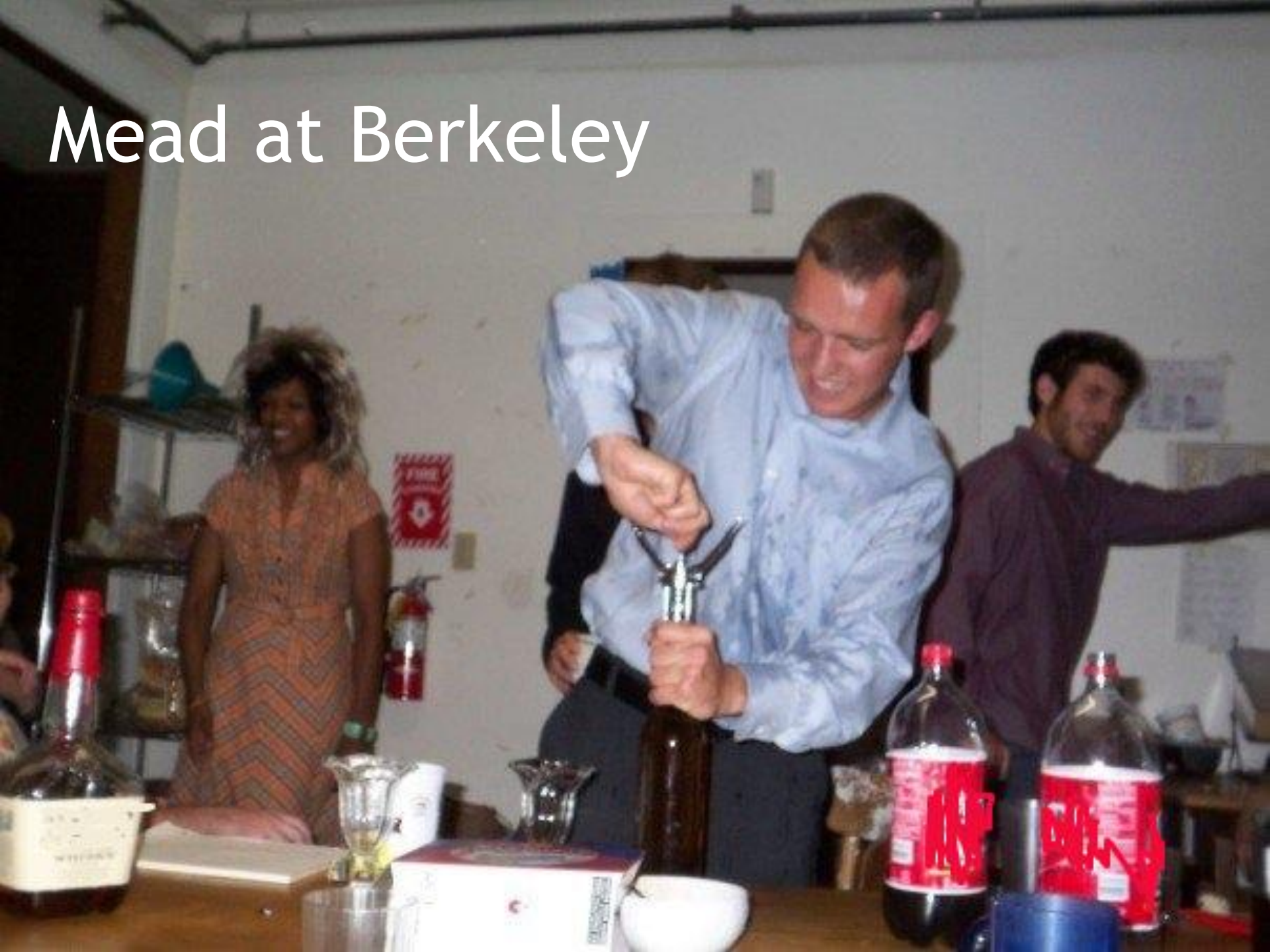


My First Mead



“The elves had filled their bottles with a clear drink, pale golden in colour: it had the scent of a honey made of many flowers, and was wonderfully refreshing. Very soon they were laughing, and snapping their fingers at rain and Black Riders.”

Mead at Berkeley









The benefits of mead making



“save the bees, drink mead”

To make mead



Honey



Water

&

Yeast





Water

Honey

Mix Honey and Water

Stir Vigorously



Paddle for
Stirring

Add yeast!





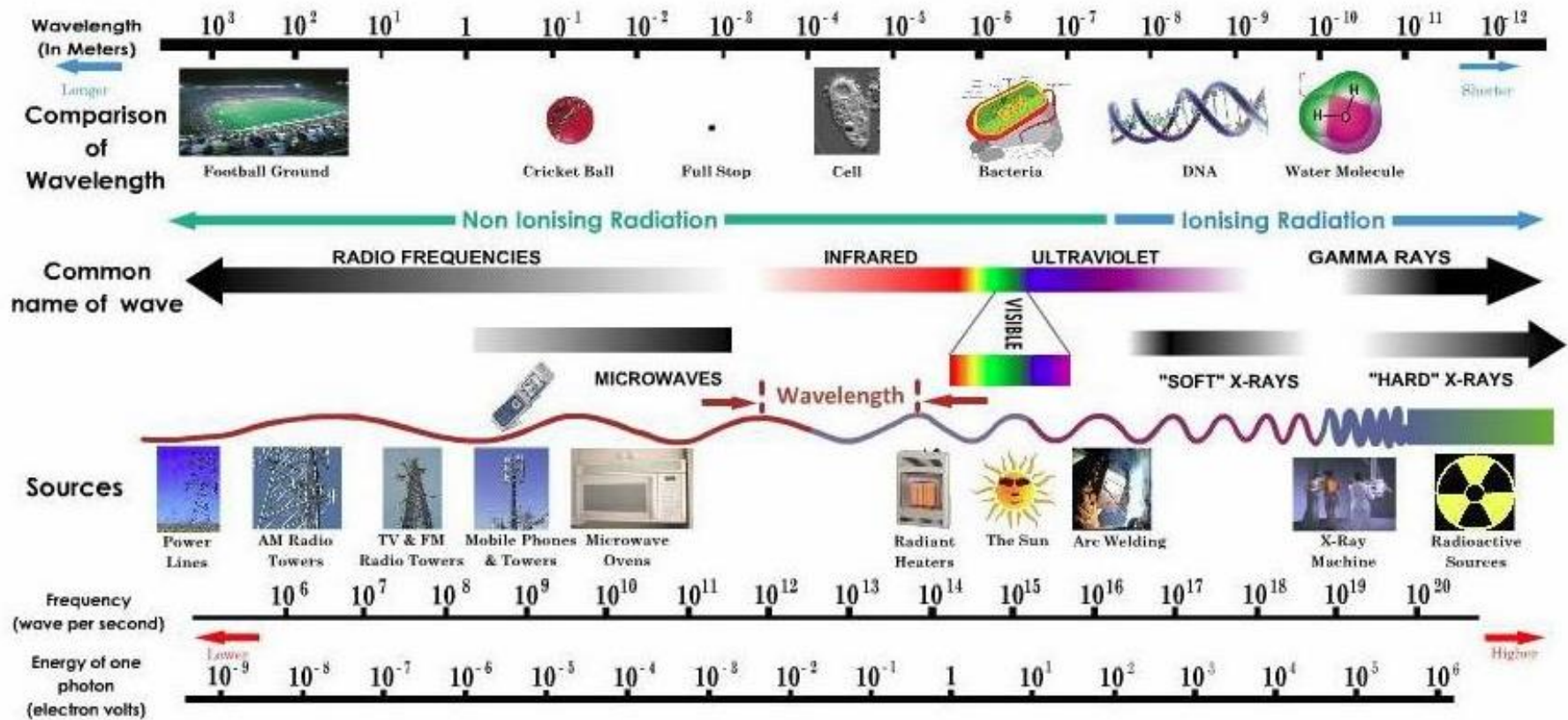
Let
Fermentation
Happen

Not!



Honey Ratio? 1-3 or 1-4 or 1-8?
Honey Preparation - Heat or No?
Yeast Selection
Nutrient Addition
Temp Control
Adjuncts?

THE ELECTROMAGNETIC SPECTRUM



DRY

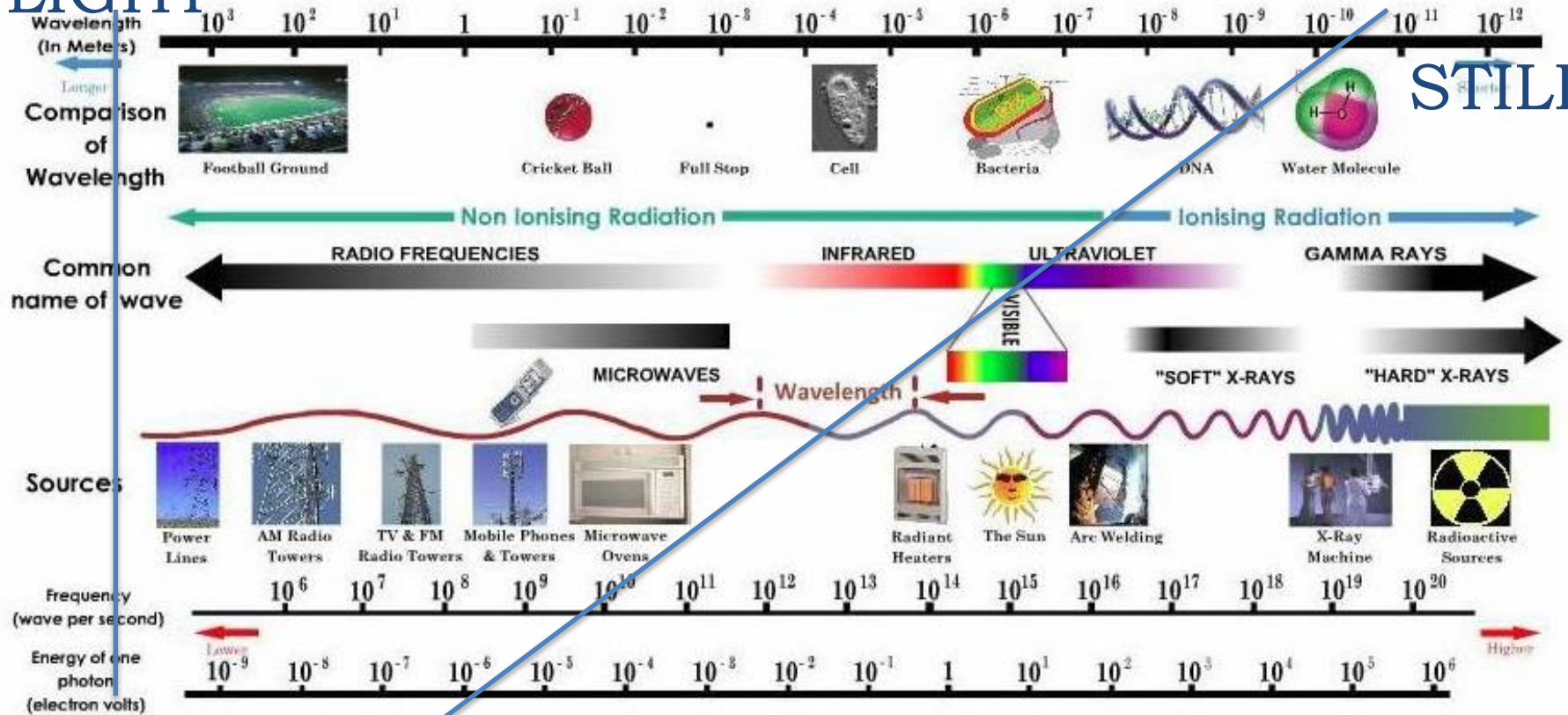
MEAD

SWEET

LIGHT

STILL

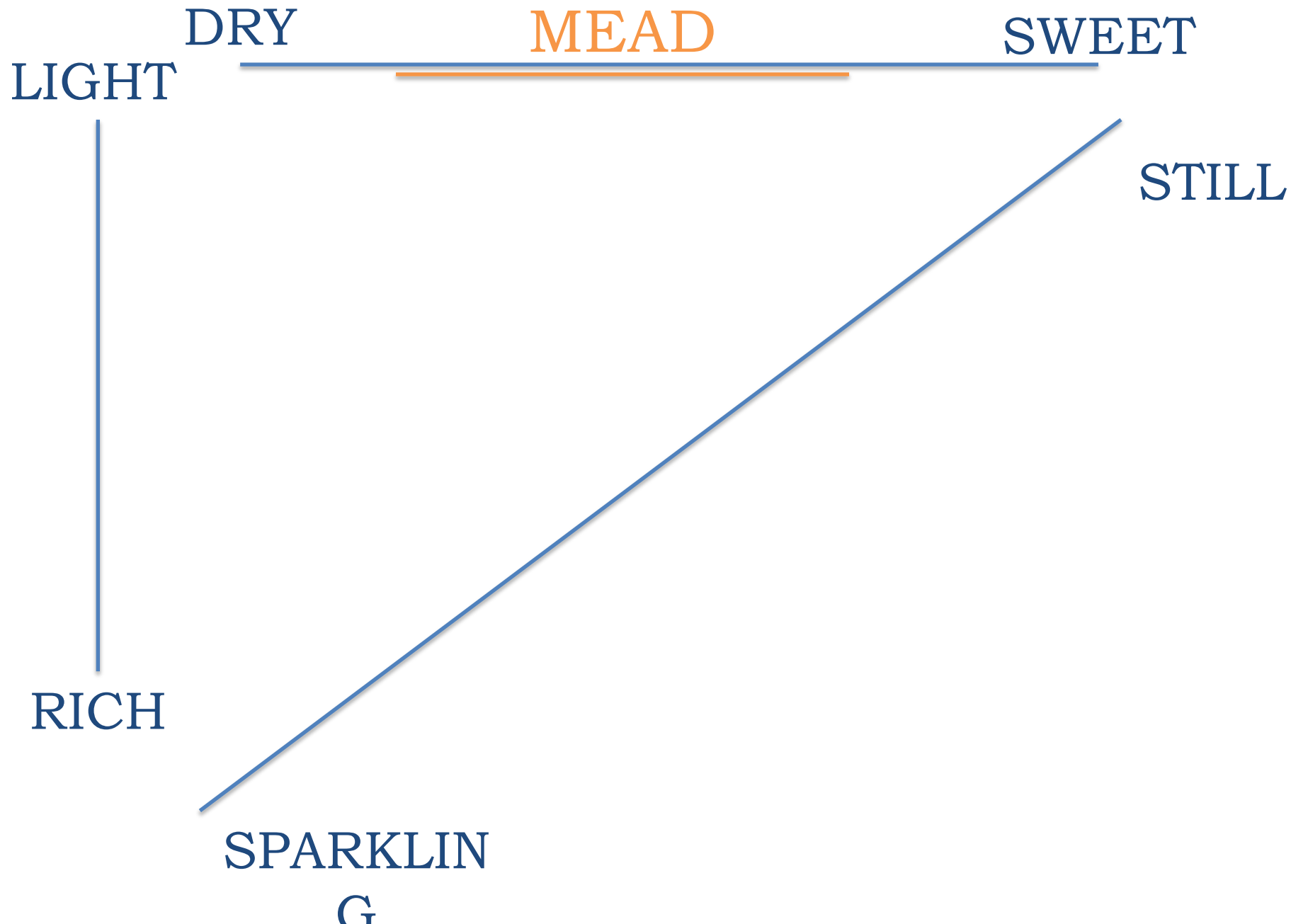
THE ELECTROMAGNETIC SPECTRUM



RICH

SPARKLIN

G



MEAD

LIGHT

STILL

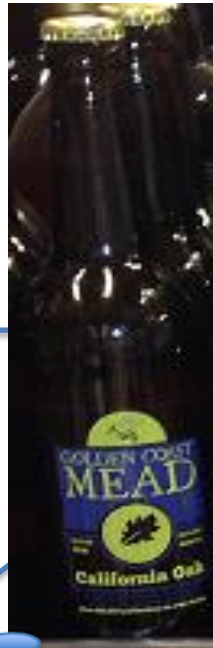
DRY

SWEET

RICH

SPARKLIN

G



MEAD CATEGORIES

Dessert Meads

Sack Meads

Hydromels

Melomels

Traditional Meads

Metheglins

SAN DIEGO STYLE MEAD

SAN DIEGO STYLE MEAD



Honey Ratio: 1-4 or lighter

Honey Preparation - No Heat

Yeast Selection - Ale Yeast

Nutrient Addition - Yes (Evolving - Overpitch, All Up Front, SNA)

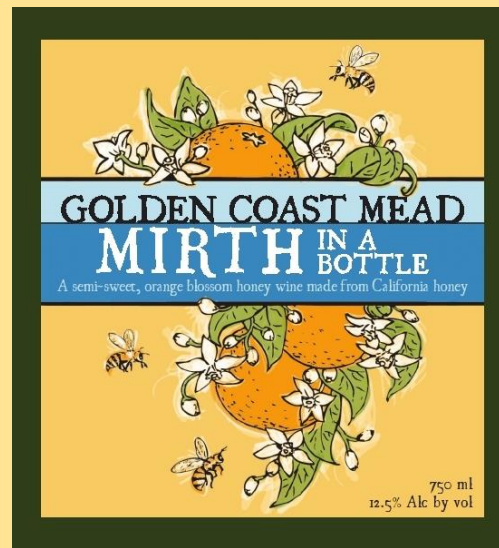
Temp Control - Yes (Cooler for clean profile)

Adjuncts: Oak, Hops or None

Characteristics: Refreshing, Honey Present but Balanced

Questions: Unfiltered? Naturally Conditioned? No Preservatives?

First and Second Styles:



Honey Ratio: 1-3

Honey Preparation - No Heat

Yeast Selection - Wine Yeast

Nutrient Addition - Minimal

Temp Control - No, then Yes (Cooler for clean profile)

Adjuncts: None

Characteristics: Rich, Honey forward, Sweet, Dessert Like

Questions: Too Intense for daily drinking? Fermentation Time?
Price Point? Port Business? Can be magical but...

SAN DIEGO STYLE MEAD

Honey Ratio and Prep

Honey Ratio: 1-4

-SB 19-22

-ABV -10.5-13.5%

-FB .7

No Heat Method

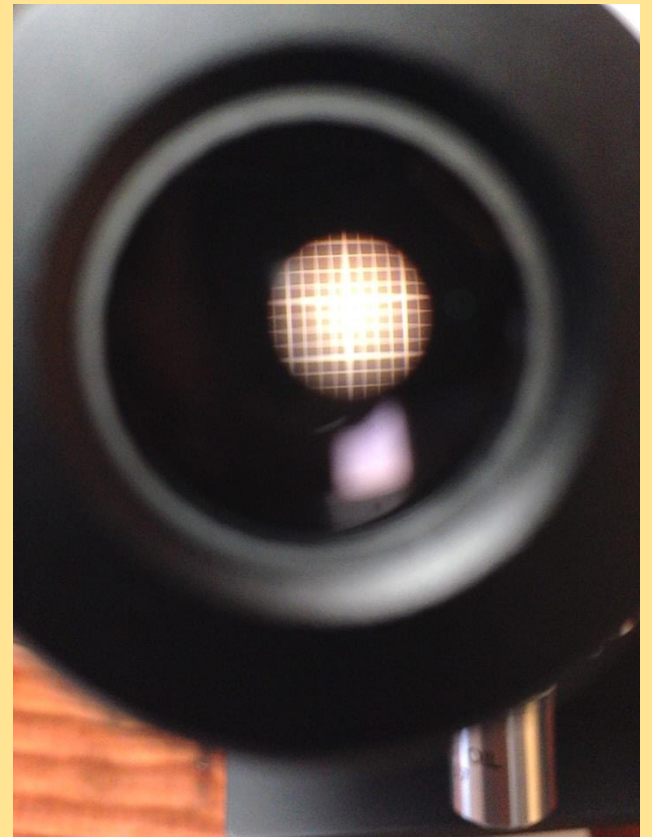


SAN DIEGO STYLE MEAD

Yeast Selection

Safale 05/04

Clean Fermenters with Ale Yeast Finish
Low to No Sulfite Production
Flocculation?



SAN DIEGO STYLE MEAD

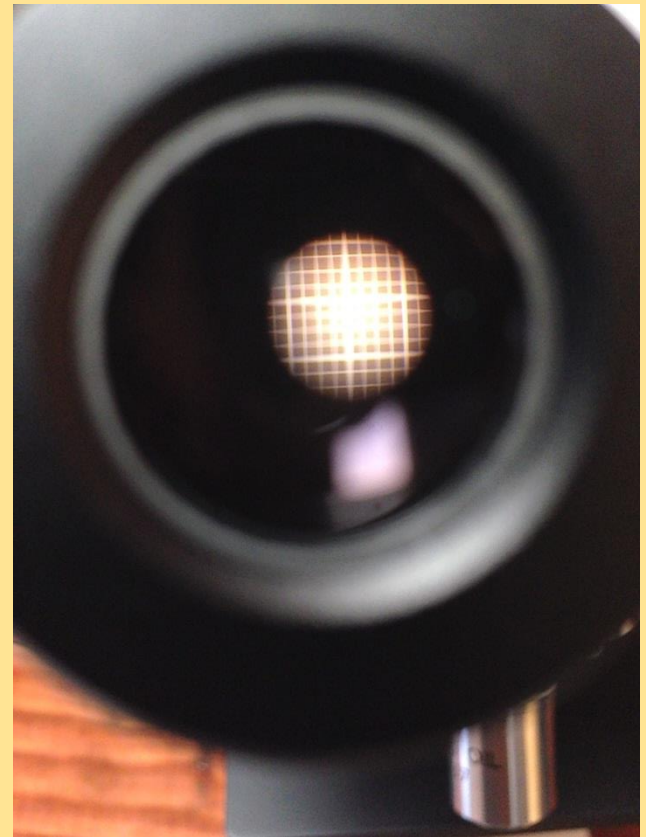
Nutrient Addition

First - None: Just overpitched 2-3x recommended yeast, dry

Results: 6-8 week fermentation, 2 weeks conditioning. Light, refreshing, variable ferm times

Then - All up front: Rehydration nutrient and broad nutrient just thrown in with mixing.

Results: Wildly variable - 2-5 weeks fermentation, very difficult to clarify and stabilize



SAN DIEGO STYLE MEAD

Nutrient Addition

Now: Staggered Nutrient Addition based off Kyle Beverly - *Mad About Mead* article in *Craft Beer and Brewing*

1. Rehydrate yeast with Go-Ferm
2. Add Fermaid O to initial must
3. 24hrs or end of lag phase - Fermaid K and DAP - aerate
4. 48 hrs or 1/6th sugar break - Fermaid K and DAP - aerate
5. 72hrs or 1/3rd sugar break - Fermaid K and DAP - aerate

*Don't add nutrients after 1st half, mead volcanoes!

Great
Gl

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M Semisweet Traditional Mead

This is the first style of mead I ever made and is still a favorite because it expresses the honey characteristics so well. It's a great recipe for exploring and testing new honey, and the light sweetness can mask minor off-flavors, so it's a great starter style.

OG: 1.120
FG: 1.015 (+/- 0.005)
ABV: 14%

INGREDIENTS
17 lb (7.7 kg) (approximately) quality honey
Sufficient water to produce 5 gal (19 l) total volume
Nutrients: 300 ppm yeast assimilable nitrogen (YAN). This is about 15 percent more nutrient than you need, but it should give you a good first batch.
30.4 g Fermaid-O
20.3 g Fermaid-K
4 g DAP
6.25 g Go-Ferm
1 g potassium metabisulfite at bottling

DIRECTIONS
Mix the honey and water together. Fill your carboy to 5 gallons (19 liters) total volume and then add the Fermaid-O to some water, stir into a slurry, and mix into the must. The Fermaid-O gives you about 100 ppm YAN of nutrient to start.
Mix the Go-Ferm with 3 fl oz/85 ml of water at 109°F (43°C). Once it is mostly mixed, leave the sanitized spoon in the mixture and sprinkle the yeast over the top. Put some plastic wrap over the top, let it sit for 15 minutes, then stir again, re-cover, and let sit for another 15 minutes or until the yeast is within 15°F (8°C) of the must. Add the rehydrated yeast to your carboy.
Ferment at 66–65°F (15–18°C). Make sure not to get above 68°F (20°C) as fusels are likely.
Once you start seeing little bubbles, it's time for the staggered nutrient addition (SNA). This is generally within 24 hours, but sometimes as soon as 3 hours.
Do a simple 2-stage SNA (to prevent mead volcanoes, mix the nutrients with some must or boiled water before adding).
50% at the end of the lag phase—40.1 g Fermaid-K and 2 g DAP
30% at 16% sugar break (about 1.104)—6.1 g Fermaid-K and 1.2 g DAP

OG: 1.120
FG: 1.015 (+/- 0.005)
ABV: 14%

INGREDIENTS
5 lb (2.3 kg) orange-blossom honey (with an additional 0.75 lb/340 g reserved for finishing)
5 gal (19 l) water (total volume will be about 5.25 gal/20 l)
Nutrients: 280 ppm yeast assimilable nitrogen (YAN). This is about 20 percent more nutrient than is required, but should give a good first batch. The 20-liter volume ends up with nice numbers of nutrients since everything is in grams per liter.
30 g Fermaid-O
20 g Fermaid-K
4 g DAP
6.25 g Go-Ferm
1 g potassium metabisulfite at bottling

HOPS
1 oz (28 g) Galaxy pellets
1 oz (28 g) Citra pellets
1 oz (28 g) Amarillo pellets

DIRECTIONS
Mix the honey and water together. Fill your carboy to 5.25 gal (20 l) total volume and then add the Fermaid-O to some water, stir into a slurry, and mix. The Fermaid-O gives you about 100 ppm YAN of nutrient.
Mix the Go-Ferm with 3 fl oz/85 ml of water at 109°F (43°C). Once that is mostly mixed, leave the sanitized spoon in the mixture and sprinkle the yeast over the top. Put some plastic wrap over the top, let it sit for 15 minutes, then stir again, re-cover, and let sit for another 15 minutes or until the yeast is within 15°F (8°C) of the must. Add the rehydrated yeast to your carboy.
Ferment at 55–62°F (13–17°C). Make sure not to get above 68°F (20°C).
Once you start seeing little bubbles, it's time for the staggered nutrient addition (SNA). This is generally within 24 hours, but sometimes as soon as 3 hours.
Do a simple 2-stage SNA (to prevent mead volcanoes, mix the nutrients with some must or boiled water before adding).
50% at the end of the lag phase—40 g Fermaid-K and 2 g DAP
50% at 33% sugar break—40 g Fermaid-K and 2 g DAP
Stir twice a day for the first 50 percent of the fermentation (2–3 days) until the gravity reaches about 1.015.
After fermentation, rack at least once, maybe twice. You want a very clear product at this point. If the mead isn't very clear, rack again, and/or consider using something like Sparklloid to clarify. You want all the yeast settled out so that when you back-sweeten with more honey, fermentation is less likely to start up again.
Once the mead is very clear, gently stir in the additional 0.75 lb (340 g) of honey (warmed up so it flows nicely), potassium metabisulfite, and hops. After a few days you should see a nice layer of hops on the bottom.
Wait 2–3 days, then rack into your keg (you'll definitely want some sort of mesh or filter on your racking cane) and force carbonate to around 2.5 volumes of CO₂.

YEAST
5 g Rhine 4600 Yeast

BREWERS NOTES
I like the extra body the Rhine 4600 yeast gives, and it produces tropical fruit aromas. You can substitute any low nitrogen yeast. Lalvin ICV D47 is also a good choice. Bulk age for a month and keg age for at least a week.

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SAN DIEGO STYLE MEAD

Nutrient Addition

Results

SNA Fermentation Brix/Hours



SAN DIEGO STYLE
MEAD

Nutrient
Addition

Results

TWO WEEKS?

SAN DIEGO STYLE MEAD

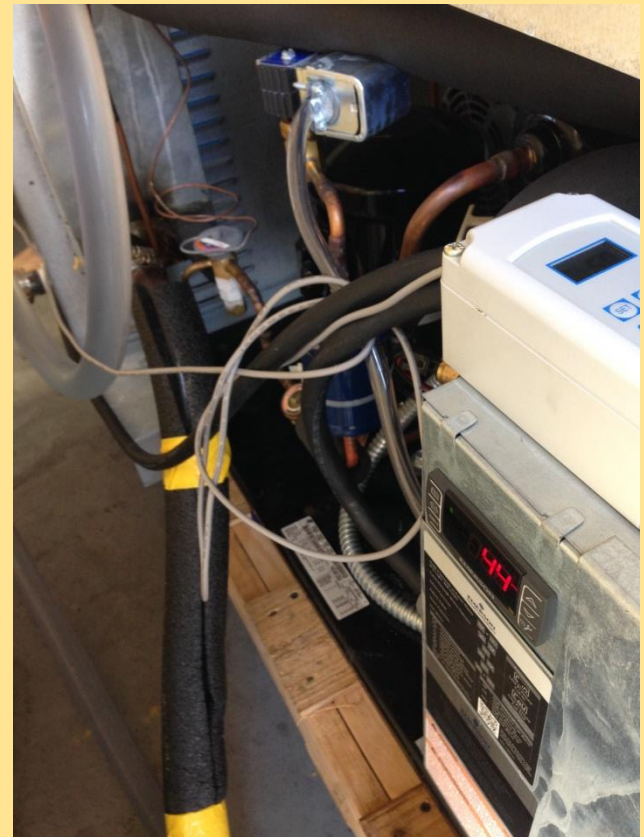
Temp Control

First: Minimal

Now: Complete - Jacketed Tanks with
3 ton Glycol chiller and Temp
Controllers (BrewBit)

71 degrees first 24 hours, 68 degrees
for duration - may warm after last
third...

Results: Clean and more stable
fermentation.



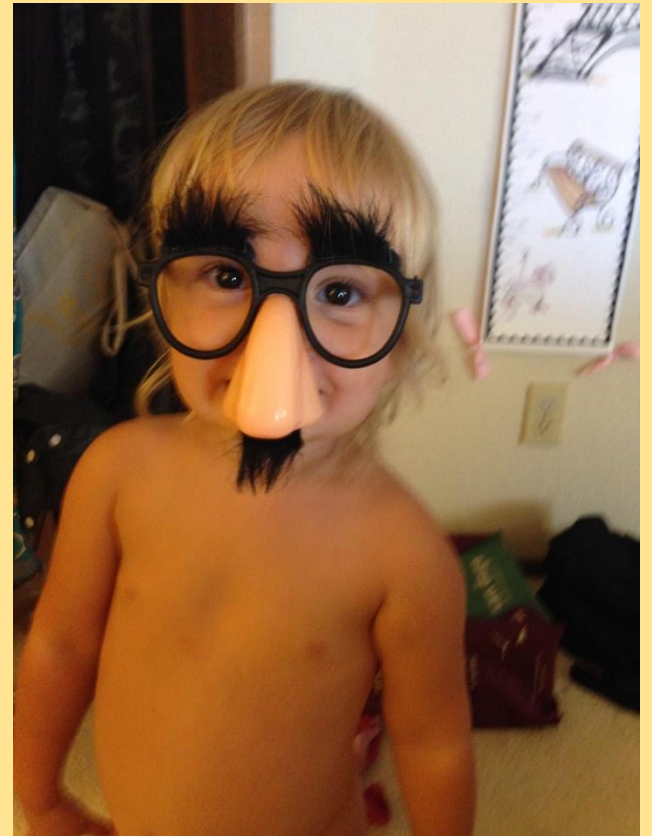
SAN DIEGO STYLE MEAD

Adjuncts

First: 1lb/bbl medium toast American oak

Now: Varies

Results: Highly variable element that can contrast with honey and create body and tannin for astringency on finish.



SAN DIEGO STYLE MEAD

Challenges

Conditioning: Natural Conditioning with residual sugar - transfer at 1.5B, psi 7, 68 F = 3.8 g/l CO₂

Bottle at .7B when the yeast is done. Worst case all honey is converted and you get 8.3g/l CO₂ ~ Champagne Like

Stable? No Preservatives? Appearance?
ABV?



SAN DIEGO STYLE MEAD

Challenges

Conditioning: Natural Conditioning with residual sugar - transfer at 1.5B, psi 7, 68 F = 3.8 g/l CO₂

Bottle at .7B when the yeast is done. Worst case all honey is converted and you get 8.3g/l CO₂ ~ Champagne Like



Let's Talk Mead



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