

# Making great mead

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# Mead: The Mjölniresque-Cycloptic Beverage

- Mead rules
- Mead checklist
- How to...or something or other
- Drinky, drinky

# Simple Rules

- Water + honey = awesome
- Great mead is easy
- Crap mead is easy

# Great Mead Checklist

- Honey quality
- Fermentation temperature
- Technique/ Methodology
- Nutrients
- Yeast choice
- Mead age
- Mead service

# Honey quality

- Great honey = great mead
- Character is dependent on source
  - Source is very important
  - Find a great source stick with it
- When a source isn't 'really' a source
  - Many northern apiarists 'winter' their bees in the south
  - Crap honey = 'dump' honey
    - Easy meal
    - Consume sugar from whats laying around = Fanta honey

# Monofloral honey varieties

- 'varietal' honey
- Region specific
- Each with its own character
- 'Wildflower'
  - Season specific
  - Example - Minnesota
    - early – 'garbage', clover, dandelion
    - late – trees, grasses, buckwheat

# Where's the info man!?

- CEP monofloral mead database
  - Wiki-based = member driven
- Very little monofloral honey info
- No centralized source for varietal knowledge in mead making.
- Resource for mead makers
- Get an idea of what things taste like before you drop for \$200 on pumpkin blossom honey

# Fermentation temperature

- Most faults are derived here
  - Boozy = alcoholic
    - Normal byproduct of fermentation
    - More honey = more booze
  - Hotness = higher alcohol
    - High temperature
  - Solvent = acetone, lacquer thinner
    - High temperature
  - Optimum temp = ~60-75F
    - Lower = more fruit esters



# Technique

- Very important
  - Various different ways of making mead
  - All have different pro's and con's
- More on this in a bit

# Nutrients

- Honey lacks vital nutrients
- Need to be added
- Amounts vary but...
  - To little = slow, incomplete ferment
  - To much = metallic, 'vitamin' faults
- Defined by technique

# Mead yeast

- ANY yeast can be used – beer, wine, cider
- All have different oxygen and nutrient demands
- My favs:
  - Lalvin 71B (aka Narbonne)
  - Lalvin R2 (Sauterns)
- Why
  - Both make sweet wines
  - Only two to produce own esters
  - High alcohol tolerance
  - Fast ferment
  - Reduces acid
  - Great young and old

# Mead age

- T/F - You must (pun intended) age mead for it to hit its peak in quality
- Why this thought process?
  - 'off' characters smooth over time
    - Yes and no - 'hot' character and acid smooth over time...as do mountains.
  - Everything gets better with age, right?
    - Yeah, hows that 2005 Beujolai Neuvo aging?
  - Ego
    - It maybe be undrinkable now, just wait 10 years and then it will be great!!
- A 2 year old crappy mead will be a 10 year old crappy mead.
  - Do it right from the start!

# Methodology

- Traditional
  - Honey, water, yeast
  - Mix, wait, wait some more
- Modified traditional
  - Honey, water, nutrient, yeast
  - Mix, wait
- Methodé a la SPHBC
  - Honey, water, nutrient, pure oxygen, yeast
    - Staggered nutrient additions, mix, mix and mix some more
  - Curt Stock – 2005 MMOTY
  - Steve Fletty – 2007 MMOTY
  - Thomas Eiber – 2005 & 2008 UMMO BOS
  - Myself – 2006 Dixie Cup BOS

# How to treat ingredients

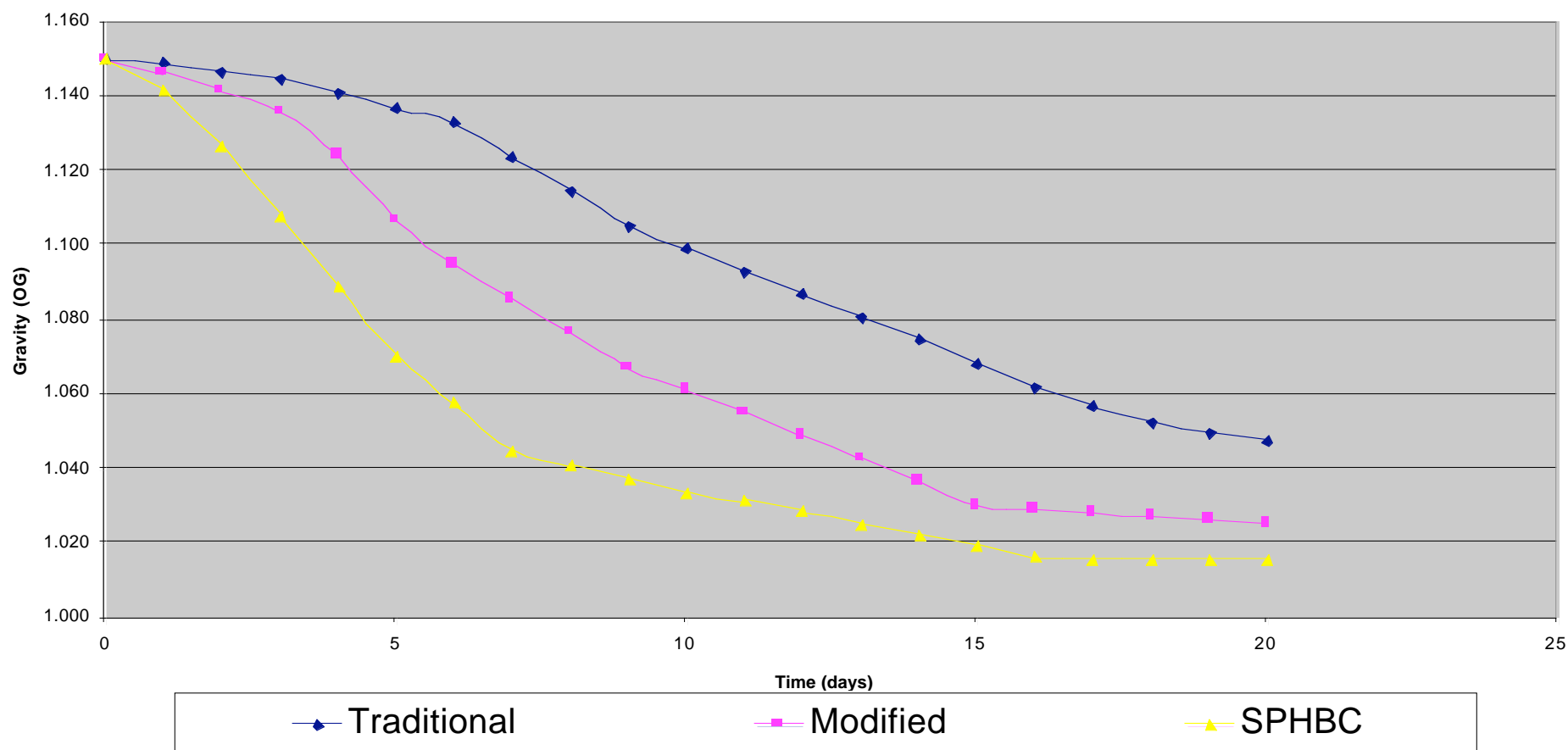
- Honey
  - Heat or no heat
  - Honey containers in warm water
- Fruit
  - Wash, chop and freeze
- Herbs/spices
  - Straight or tincture

# Methodé a la SPHBC

- Go-FERM
  - Rehydration medium
  - Increases the activity and optimizes the health of the yeast
- Staggered nutrient additions
  - Split nutrients into different additions
  - Only so much nutrient can be used at once
- Mixing
  - Ensures yeast is roused
  - Displaces CO<sub>2</sub> = increases yeast health

# Method Comparison

Attenuation





# What's this all about pH then?

- pH drops as fermentation continues
- Low pH = unhappy yeast
- How can we change this?

# Basically simple!

- Need a base to bring the pH up.
- Which?
  - Two choices
    - Potassium Carbonate – ( $\text{KCO}_3$ )
      - Safe
      - Raises pH but weakly
      - K is good for yeast
      - $\text{CO}_3$  is left ☹
    - Potassium Hydroxide – ( $\text{KOH}$ )
      - Nastier stuff
      - Raises pH strongly
      - K is good for yeast
      - OH is left = ok

# Curts Article

# Even-Speed-Mead...no not that speed hippie

- Take on the SPHBC method
- Additions at 0-2-4-6 = Even
- Need:
  - Fermaid-K
  - Go-Ferm
  - DAP
  - Potassium hydroxide (careful now)

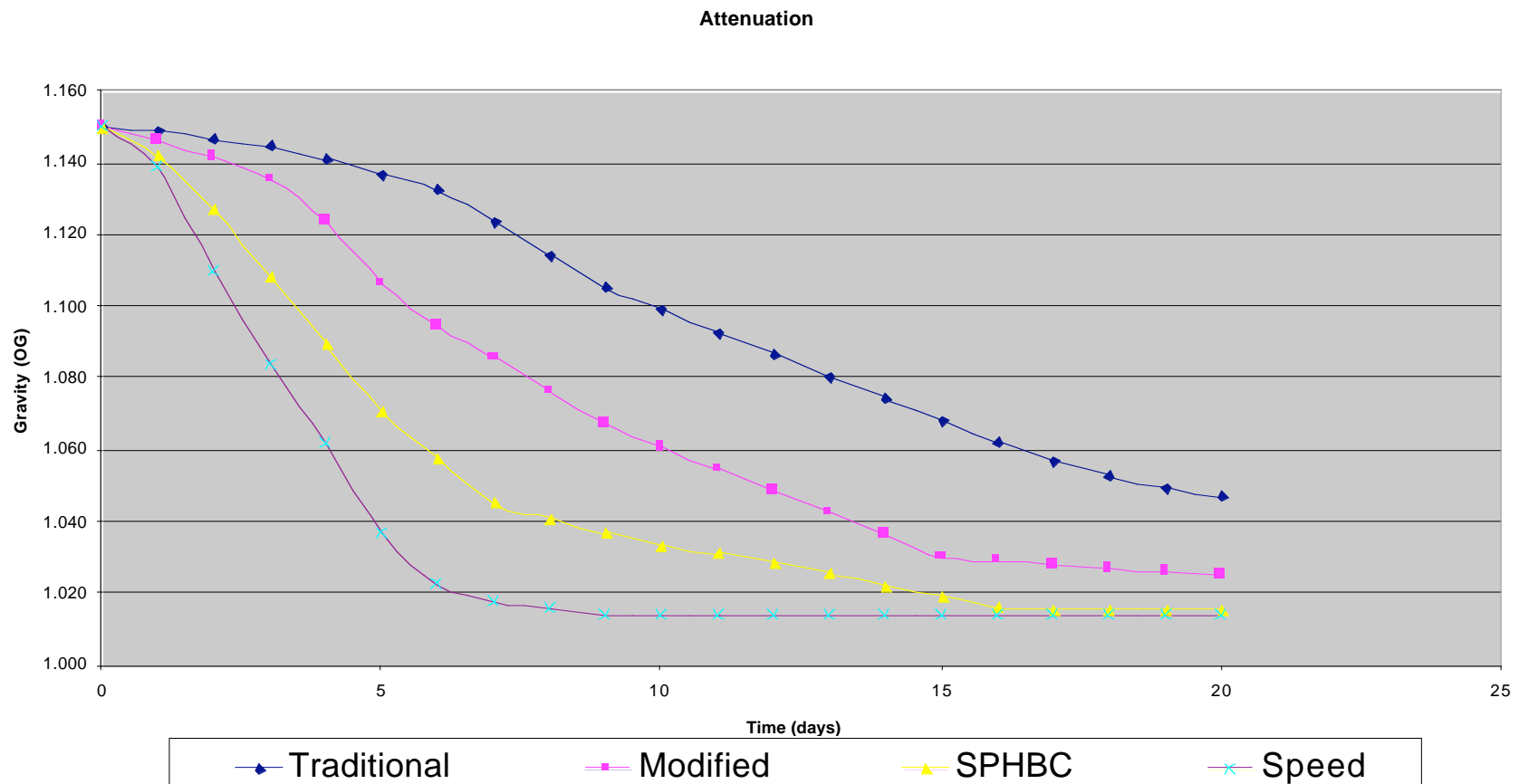
# Breakdown

- **Day 0 - Start mead**
  - 4.5g Fermaid-K
  - 2g DAP
  - Yeast - 2x 71B
  - 28g Go-ferm
    - dissolve in 110F water
    - add yeast once at 104F
    - incubate 15-30 min and pitch
- **Day 1, 3, 5, 7,8**
  - stir mead
  - careful, do it slowly = volcano
- **Day 2, 4, 6**
  - stir
  - 4.5g Fermaid-K
  - 2g DAP
  - 50ppm KOH (10ml of 2M solution)

# Even-Speed-Mead Chart

Day	Fermaid K	DAP	2M KOH	Stir	Temp
0	4.5g	2g	-	Yes	70F
1	-	-	-	Yes	70F
2	4.5g	2g	10ml (50ppm)	Yes	70F
3	-	-	-	Yes	70F
4	4.5g	2g	50ppm	Yes	70F
5	-	-	-	Yes	70F
6	4.5g	2g	50ppm	Yes	70F
7	-	-	-	Yes	70F
8	-	-	-	Yes	70F

# Sweet mead comparison



# Fermentation speed

- Lots of bad info
- Biggest keys
  - Health of yeast
  - Temperature



# Drinking mead

- Constituents
  - Carbonation
  - Serving temperature
- Can make or break the mead
- Depends on mead character and 'style'
  - E.g. Sweet can handle higher carb levels

# Pure enjoyment

- Don't forget to make what you like
- Get experimental
- Use common sense; don't be a Dumas
- Technique
  - Ferment things together
  - Ferment things separate
  - Blend various meads
  - There is no wrong way

# Good Examples

- Mixed drinks
  - Manhattan
  - Cosmo
- Blend with any wine
  - Vermouth
  - Saké
- Desserts
  - Raspberry cheese cake
  - Key lime pie
  - Smores
- Technique
  - Port
  - Tokaj
  - Methodé Champanoise
- Herbs
  - Lavender
  - Thyme
  - Saffron
- Spices
  - Szechuan peppercorn
  - Smoked paprika
- Oak/barrel-aged
  - Brandy barrel
  - Bourbon barrel
- Other
  - Flanders red/brown
  - Belgian strong dark
  - sludge

# Bad Examples

- Roasted celery and celery salt
- Dill pickles
- Sautéed garlic
- Clam juice
- Spontaneously fermented tomato

# More info on mead

- Schramm's book
- Curts article
- Careful on the interwebs
  - Too many experts
  - Too much wiki-ality

# Samples

- Blackberry blossom
  - Curt Stock
  - Med, Petillant
  - 18#, 5gal, FG1037
  - sweet
- Mesquite
  - Curt Stock
  - 16#, 5gal, FG1007
  - Dry, boozy
- Gewürtz. OB
  - Steve Fletty
  - Fermented separate
  - Combined, back sweetened FG1016
  - acidic
- Raspberry Lemon-aide
  - 3 weeks old
  - Fresh rasp, lemon zest, wf
  - OG1090, FG1015
- Sludge #12
  - Pom, Rasp, Blackberry, OB, Dandelion, Mesquite, spring wf, late summer wf,
  - Open aged
  - FG1009
- Fortified
  - OB pomegranate, Tawny port, Hungarian Hazipalinká
  - FG 1020, ~32%abv