

Making great mead

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Mead: The Mjölnairesque-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

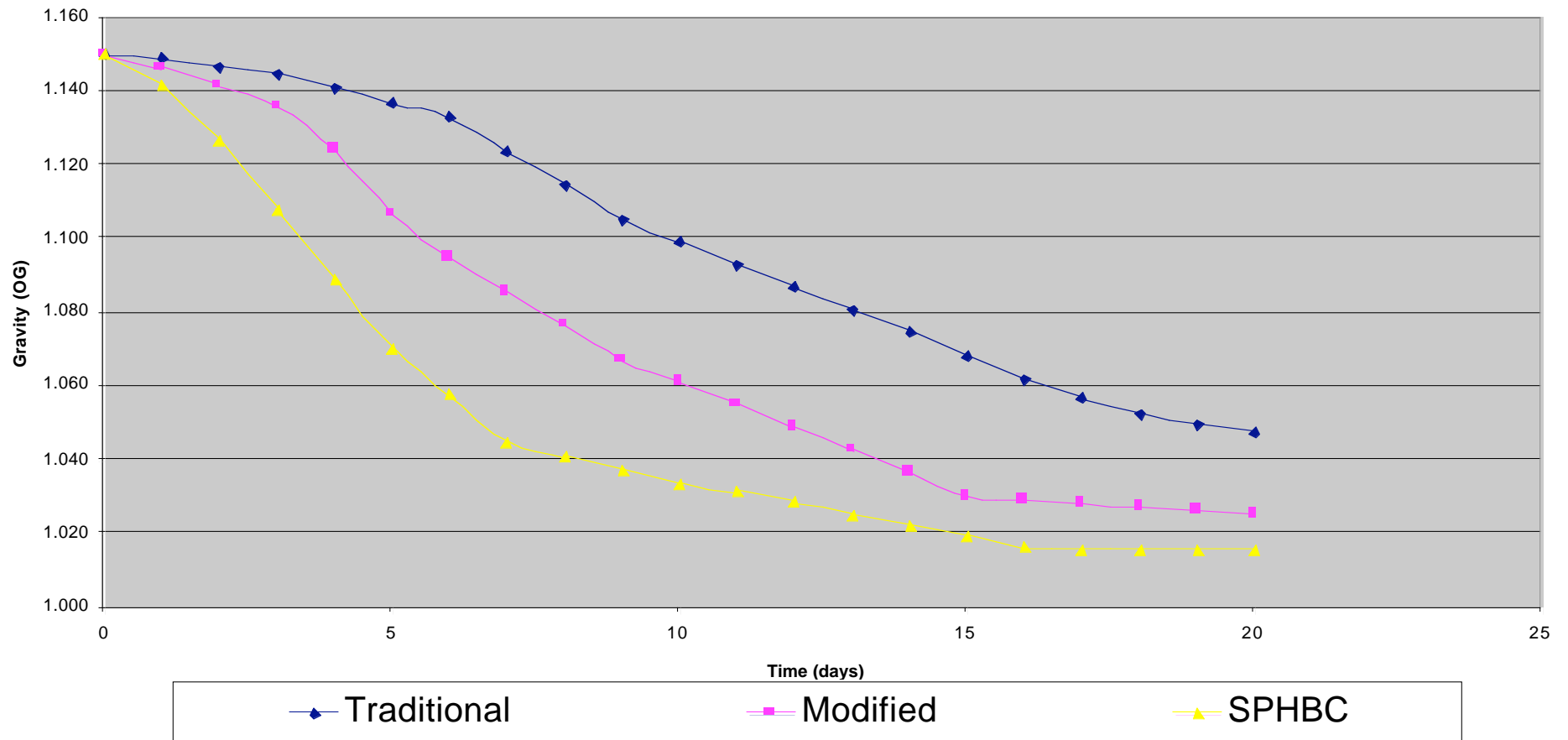
- Honey
 - Heat or no heat
 - Honey containers in warm water
- Fruit
 - Wash, chop and freeze
- Herbs/spices
 - Straight or tincture

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 CO₂ = 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 – (KCO_3)
 - Safe
 - Raises pH but weakly
 - K is good for yeast
 - CO_3 is left ☹
 - Potassium Hydroxide – (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)

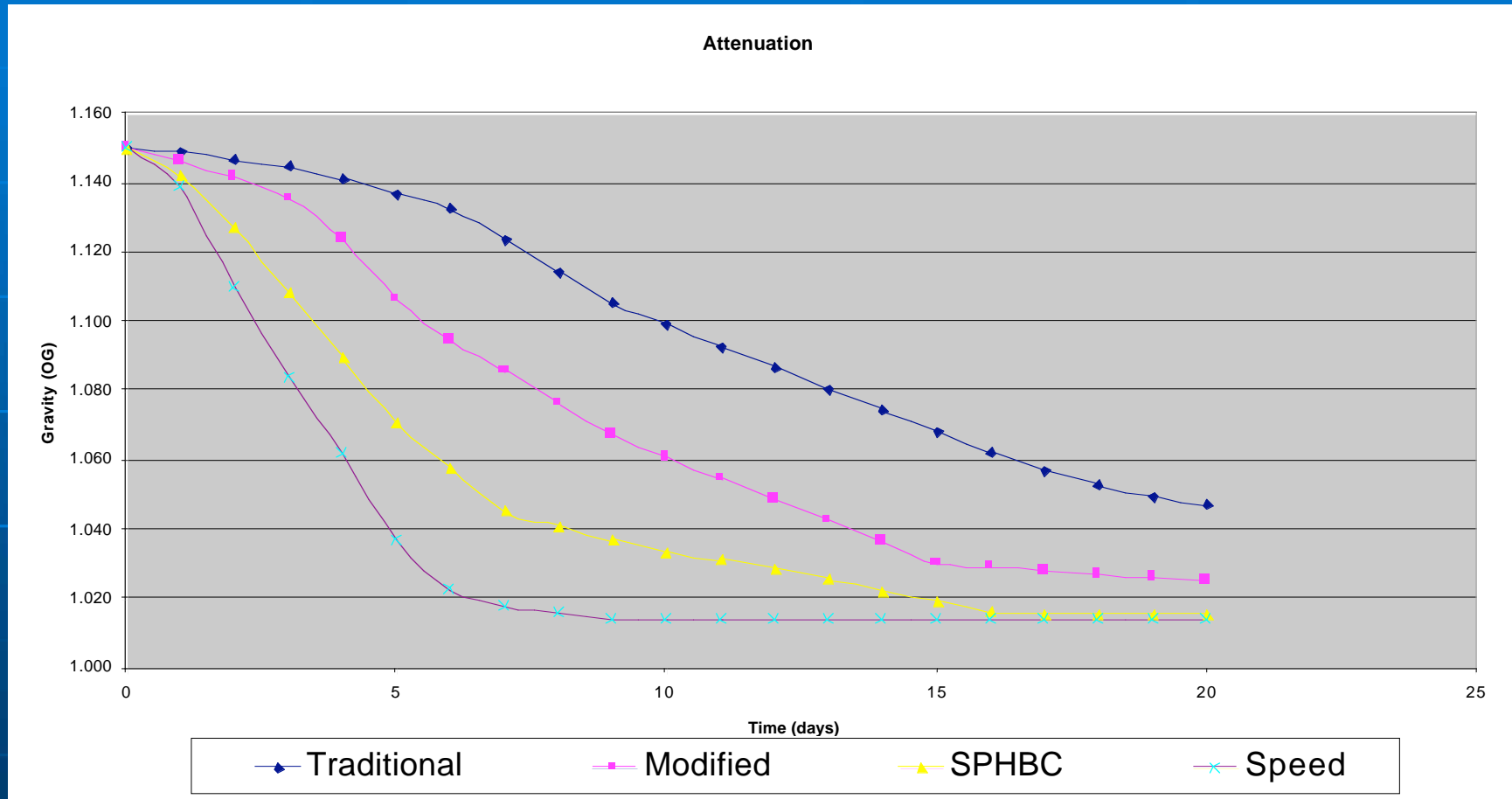
Breakdown

- **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