
# MASH
# Monthly Meeting

## May 23, 2024

# Welcome

# New Members

# Club Finances

MAY 2024
YTD CASH FLOW

## Cash Flow

**Miami Area Society of Homebrewers**

Date Range: Jan 01, 2024 to May 20, 2024

| CASH INFLOW AND OUTFLOW | Jan 01, 2024 to May 20, 2024 |
|---|---|
| **Operating Activities** | |
| Sales | $4,372.43 |
| Purchases | -$3,621.88 |
| **Net Cash from Operating Activities** | **$750.55** |
| **Investing Activities** | |
| **Net Cash from Investing Activities** | **$0.00** |
| **Financing Activities** | |
| **Net Cash from Financing Activities** | **$0.00** |

| OVERVIEW | |
|---|---|
| **Starting Balance** | **$3,229.25** As of 2024-01-01 |
| Gross Cash Inflow | $4,372.43 |
| Gross Cash Outflow | $3,621.88 |
| **Net Cash Change** | **$750.55** |
| **Ending Balance** | **$3,979.80** As of 2024-05-20 |

# Club Finances

MAY 2024
BALANCE SHEET

## Profit and Loss

**Miami Area Society of Homebrewers**

Date Range: Jan 01, 2024 to May 20, 2024

| ACCOUNTS | Jan 01, 2024 to May 20, 2024 |
|---|---|
| **Income** | |
| Coconut Cup Entry Payments | $3,168.40 |
| Coconut Cup Raffle | $213.42 |
| Member Dues | $573.03 |
| Sales | $417.58 |
| **Total Income** | **$4,372.43** |
| **Cost of Goods Sold** | |
| Merchandise Manufacturing Costs | $401.52 |
| **Total Cost of Goods Sold** | **$401.52** |
| **Gross Profit** | **$3,970.91** |
| As a percentage of Total Income | 90.82% |
| **Operating Expenses** | |
| Coconut Cup Expenses | $2,168.29 |
| Competition Entry Fee Reimbursement | $350.00 |
| Legal/Administrative Expenses | $89.02 |
| Medal Incentive | $175.00 |
| Printing and Reproduction | $262.11 |
| Special Events | $175.94 |
| **Total Operating Expenses** | **$3,220.36** |



| | |
|---|---|
| **Net Profit** | **$750.55** |
| As a percentage of Total Income | 17.17% |

# 2024 Competition Schedule

- **Hogtown Brew-Off Awards Ceremony on Saturday. Good luck!**
- **Commander SAAZ registration opens June 12th.**

| Competition | Club | Location | Entry Limit | Entry Limit per Brewer | Entry Date | Awards Ceremony |
|---|---|---|---|---|---|---|
| Hogtown Brewoff | Hogtown Brewers | Gainesville | 400 | 3 | 4/1 - 5/1 | May 25th |
| Hot 'N' Humid | Brewers Anonymous | Orlando | 300 | 3 | 5/1 - 5/24 | June 30th |
| Commander SAAZ | Space Coast Association for the Advancement of Zymurgy | Melbourne | 400 | 4 | 6/12 -7/12 | August 19th |
| Suncoast Challenge | Central Florida Home Brewers | Orlando | 300 | 3 | 8/18 - 8/31 | August 19th |

Entry Delivery: Rafa

# Florida Circuit Club Standings

| Club Name | Location | Points |
|---|---|---|
| Cowford Ale Sharing Klub (CASK) | Jacksonville | 79 |
| Brewers Anonymous | Orlando | 59 |
| **MASH** | **Miami** | **50** |
| Palm Beach Draughtsmen | Boynton Beach | 50 |
| Pinellas Urban Brewers Guild | Seminole | 40 |

# Updated Medal Incentive Program

## Effective Immediately:

- Earn a medal at a Florida competition or National Homebrew Competition
- Receive Incentive Credit i/a/o $25.00
- Incentive can now be used at ANY homebrew shop
- Funds may only be utilized for ingredients, not equipment

# Group Brew / Collaboration at The Tank Brewing Co.



Czech out MASH!

Czech Dark Lager

# Summer Solstice Party

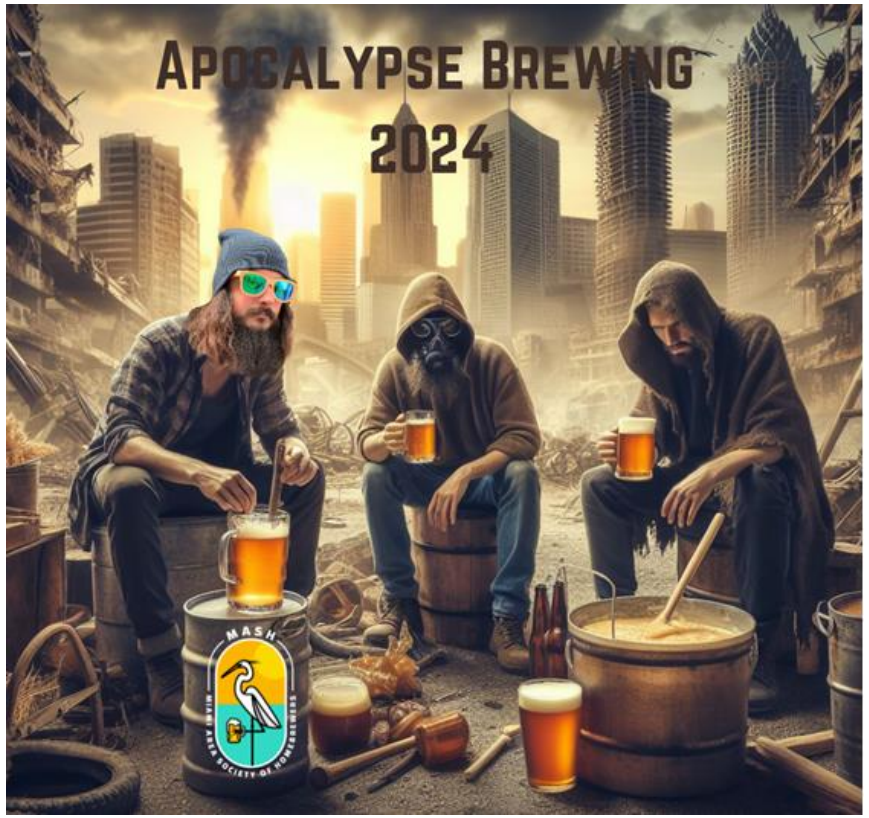

Date: Saturday, June 22

Time: TBD

Location: Home of John Bankston (Miami Springs)

Food will be provided. Bring beer!

# Apocalypse Brewing




**Rules:**

Product must be beer/gruit based, no cider or mead bases; Besides that, you are able to use anything you can find at your local grocery store.

Recipe to be made from exclusively grocery store-purchased ingredients. This includes grains, yeasts, and hop substitutes.

You can harvest yeast from a beer purchased at the grocery store but have to grow the yeast using grocery store-purchased ingredients.

Grocery stores eligible: Publix, Winn-Dixie, Sedanos, Aldi, Trader Joe's, Fresh Market. No specialty stores (homebrew shops, Whole Foods, etc.) or online stores like Amazon.

All ingredients must be listed on the final product to be eligible.

**Entries will be shared at the Summer Solstice event and judged by all those in attendance.**

# BREWERY SPOTLIGHT


To be rescheduled.

Date?

The club will pay for your first beer (Members in good standing).

# Beer Festival & Competition


Jun 15 @ Tap Room

**INDEPENDENCE BEER FESTIVAL & HOMEBREW COMPETITION**

**JUNE 15 1:00 PM - 4:00 PM**

# New Business?


June BotY Style: Pale Commonwealth Beer

# SEE YOU NEXT MONTH!

Miami Area Society Of
HOMEBREWERS


# The FOOOOAM!

- What is beer foam?
- How do we achieve the best possible beer foam?

# The “Bible” of Kunze

## Technology of Brewing and Malting – Wolfgang Kunze

***7.2.2 Beer foam***

*The foam of the beer is a parameter which is evaluated very differently in different countries. Whilst in Germany and most European countries great value is attached to a large, stable head of foam, in England, for example, no importance is placed on foam. This is emphasized by the glass being filled to the brim, and not only in the case of beer, whereas in other countries the glass is only intended to be filled to the calibration line to leave sufficient room for the foam. For the evaluation of good foam, its volume and stability are of interest.*

***Foam formation***

*Foam occurs on dispensing the beer as a result of the formation of C02 bubbles released by the reduction in pressure. The C02 bubbles occur preferably at condensation points (cracks, adherent particles) in the glass and collect surface active materials as they rise. These surface active substances have a low surface tension but a high hydrophobicity (water repellent property); this means that within limits they can increase their surface area and also, after the bubbles have risen, they form an elastic skin around the gas bubble. The greater the amount of dissolved C02, the more foam is formed. But foam formation is not the same as foam stability. Foam is only stable in the presence of these surface active substances. No stable foam can be formed in a glass of mineral water since there are none of these substances present there. Thus one must always distinguish between foam formation and foam stability. It is the stability which is most important.*

***Foam Collapse***

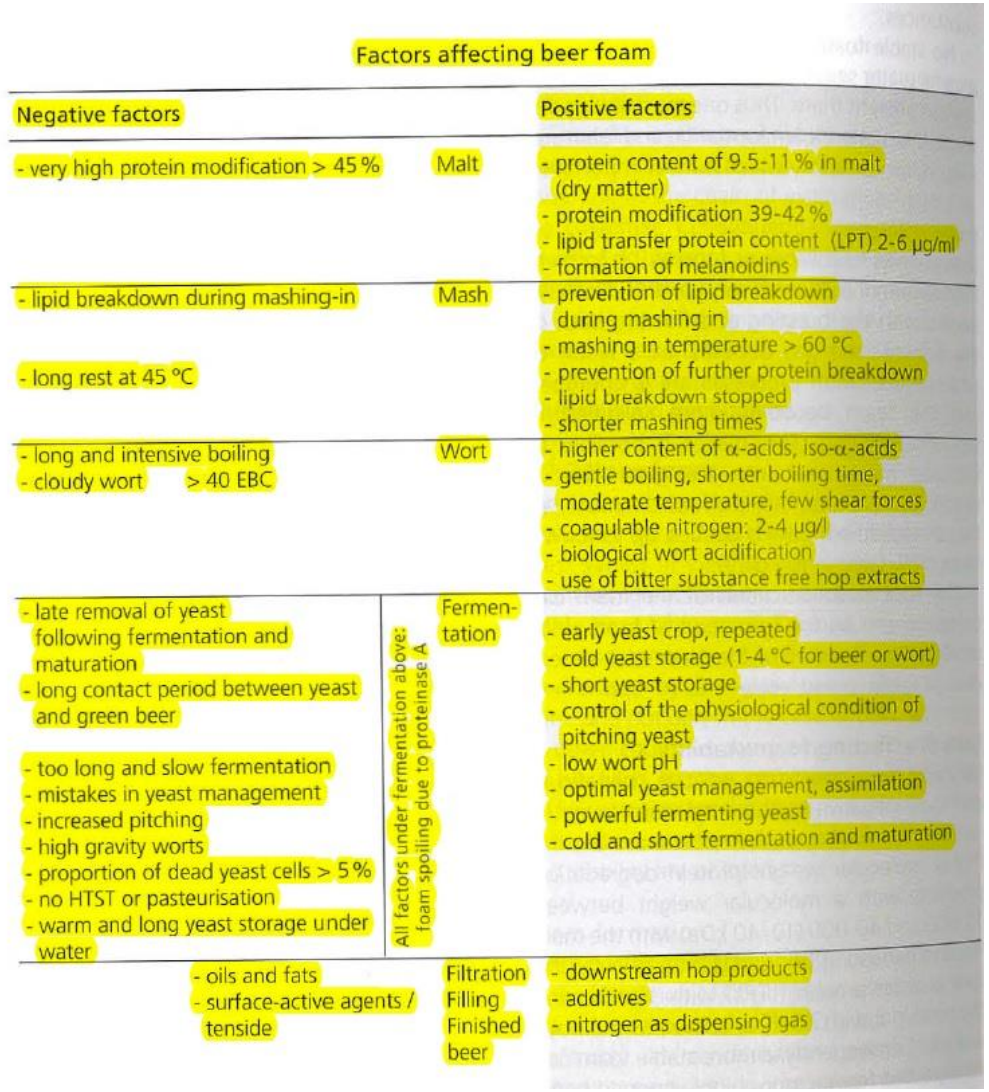
*Foam begins to collapse as soon as it is formed, but the rate of collapse is very variable. Collapse begins with the bursting and flowing back of the skins of the gas bubbles, as a result of which evaporation processes are encouraged and the foam becomes more solidified in the upper region. This makes it possible to dispense more beer into the glass after a relatively short time (after about a minute) so that the solidified foam is pushed up to form a foam crown above the glass. The further solidification of the foam can be recognised by the formation of foam rings reduced on the wall of the glass each time a drink is taken.*

***Factors affecting foam stability***

*Basically there are foam positive (beneficial) and foam negative (detrimental) substances. The main foam positive substances are the higher molecular weight protein degradation products with a molecular weight between 10 000 and 40 000 (10-40 kDa) with the main fraction consisting of 40 kDa, in particular the lipid transfer protein (LTP1) with 10 kDa and the protein Z with 40 kDa, as well as the hop-a-acids. Consequently, a more stable foam can be expected from a more highly hopped beer. On the other hand, the main foam negative substances are alcohols, part particularly the higher ones, and several fermentation by-products and also anthocyanogens and a higher concentration of amino acids. During lagering and in beer which is not heat treated the LPT1 is increasingly broken down by the yeast proteinase A, which leads to a decrease in foam stability (261 ). By means of heat treatment of the beer (HTST, pasteurization at at least 30 PU) the yeast proteinase A is inactivated. Of the large quantity of factors which can affect the foam, a number of these are summarized in Fig. 7.1 a.*

# Kunze Continued

***From an analytical point of view, the factors affecting foam are (344):***
*Malt: protein modification 39-43 %*
*Mashing: mashing in temperature through short mashing method 60 ˚c*
*Wort:*
*coagulable nitrogen 20-40 mg/l*
*MgS04 precipitable*
*nitrogen 130-180 mg/l*
*FAN 220-250 mg/l*
*a -acids 1-3 mg/l*
*iso-a-acids 10-40 mg/ l*
*zinc 0.15 -0.30 mg/l*
*ICP > 6.0*
*methylene blue below 5 %*
*surface tension 40-44 mN/m*
*LTP1 2-6 µg/ml*
*protein Z 100-250 µg/ml*
*proteinase A < 50 U * 10-5/ml*
*medium chained fatty acids < 8 mg/l*



Factors affecting beer foam

| Negative factors | | Positive factors |
|---|---|---|
| - very high protein modification > 45 % | Malt | - protein content of 9.5-11 % in malt (dry matter)<br>- protein modification 39-42 %<br>- lipid transfer protein content (LPT) 2-6 µg/ml<br>- formation of melanoidins |
| - lipid breakdown during mashing-in<br>- long rest at 45 °C | Mash | - prevention of lipid breakdown during mashing in<br>- mashing in temperature > 60 °C<br>- prevention of further protein breakdown<br>- lipid breakdown stopped<br>- shorter mashing times |
| - long and intensive boiling<br>- cloudy wort > 40 EBC | Wort | - higher content of α-acids, iso-α-acids<br>- gentle boiling, shorter boiling time, moderate temperature, few shear forces<br>- coagulable nitrogen: 2-4 µg/l<br>- biological wort acidification<br>- use of bitter substance free hop extracts |
| - late removal of yeast following fermentation and maturation<br>- long contact period between yeast and green beer<br>- too long and slow fermentation<br>- mistakes in yeast management<br>- increased pitching<br>- high gravity worts<br>- proportion of dead yeast cells > 5 %<br>- no HTST or pasteurisation<br>- warm and long yeast storage under water | Fermen-tation | - early yeast crop, repeated<br>- cold yeast storage (1-4 °C for beer or wort)<br>- short yeast storage<br>- control of the physiological condition of pitching yeast<br>- low wort pH<br>- optimal yeast management, assimilation<br>- powerful fermenting yeast<br>- cold and short fermentation and maturation |
| - oils and fats<br>- surface-active agents / tenside | Filtration<br>Filling<br>Finished beer | - downstream hop products<br>- additives<br>- nitrogen as dispensing gas |

All factors under fermentation above: foam spoiling due to proteinase A

# What does that mean for US!?

**Malt selection**

Most modern malts are modified to a point that you need to ensure you don't over mash. Darker (longer kilned malts) are going to be more foam positive. Also never use carapils/carafoam as it is actually very foam negative.

**Hop selection**

Essentially; More hops, better potential for foam.

**Mashing**

Recirculate your mash and if you can perform a step mash. Cloudy wort can both lead to increased staling AND poor head retention. The alpha step of a step mesh is probably going to be your best bang for the buck here as far as foam is concerned. The issue, however, is this: ***the majority of folks who are step mashing are using too low of an alpha step to get the glycoproteins they really need to help them.*** First rest should be 20-30 minutes at 73 °C (163-164 °F). However, many bad things can happen here from oxidation to poor foam, so only mash for as long as you have too. Do not extend the mash without a good reason. Beta enzymes are almost fully denatured within 40 minutes so there is no need to extend the duration unless you REALLY need to,

***Proper pH, step mash with the proper alpha step and timing, Clear wort.***

**Boiling**

Yes, this is where you add the foam positive alpha acids from things like hops; But you also need to be aware of some things.

Boil soft: Boiling too hard will drive coagulable nitrogen out of the wort which is a problem since it's very foam positive. Conversely even a little bit of DMS is very foam negative. A higher starting boil pH (5.4) will reduce DMS nearly 2x as fast. ***Soft boil, but get rid of DMS*.**

**Fermentation**

Pitch the correct amount of HEALTHY yeast and ferment "cold" (based on the yeast strain selected). If you give the yeast a playground full of nutrients and oxygen they will perform as expected.

Preferred pre-pitch pH-Below 5.2

**Packaging**

Spund: Helps with oxidation mitigation but will also help with foam! Yeast under pressure excrete glycerin which is another foam positive substance.

***Spunding is king, adding sugar is second, force carbonation is bad!***

The above information will get you to a place that you can create beer with good foam characteristics (big, dense foam that lasts). But, it's not just that simple. All things need to work together. And one thing can diminish the foam of a beer (specific yeast selection or bacteria, pH, etc.)

Good Luck and FOOOOOOOOOM!