

# Miami Area Society of Homebrewers Meeting



April 26, 2018

## Events with Ruben and Alain!



- Sprung recap
- Brew at the Zoo?
- Big Brew Day, May 5  
(see next slide)



# AHA Big Brew Day

**BIG  
BREW**  
**MAY 5, 2018**



- Saturday May 5
- Urban Brewers
- 8am arrival, 8:30 brew day starts

## 2018 MASH Medal Update

- Hurricane Blowoff winners included Dave Kirsten (2 silvers), Bob and Rachel Billany (1 silver), Marie Waldron (1 silver), and Geoffrey Shideler (1 silver, 1 gold)
- National Homebrew Competition First Round winners include Jon Britton (3<sup>rd</sup> place) and Geoffrey Shideler (3<sup>rd</sup> place).
- MASH now has 21 medals for the year.

**GOLD**

**6**

**SILVER**

**8**

**BRONZE**

**7**



# HOME BREWERS

**Presented by**  
**Ashley L. Hanke, Esq.**  
**Alcohol Beverage Attorney**  
**Malkin Law, P.A.**



# Florida Homebrew Laws



- **Florida Statute section 562.165**
- **100-200 gallons annually**
- **Use at organized affairs, exhibitions, or competitions, such as homemakers' contests and tastings**
- **No Sale**
- **FL Brew Fests**

# Brewery Start-up Process

- **Costs**
- **Formation**
- **Trademark**
- **Brewers Notice**





# Start-up Process Cont...

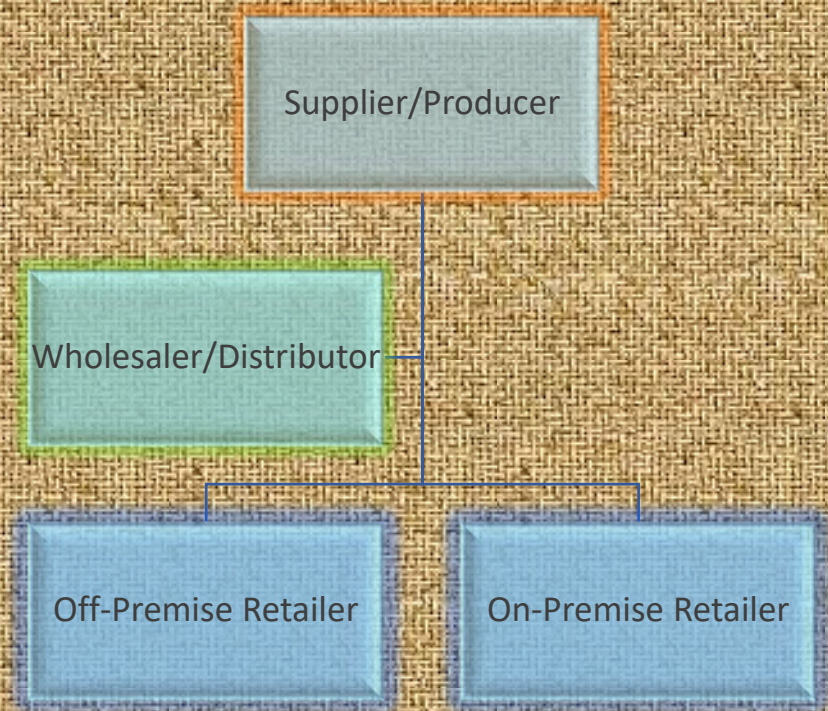
- **Florida License**
- **CMBP**
- **CMB**
- **Distribution/Marketing**





# Once You Are In Business....

- 3 Tier System
- Trade Practices/Cheat Sheet



**Call With Any Questions...**

**Ashley Hanke  
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Ashley@malkin.law  
(860)394-7012 (c)**



# Hogtown Brew-off and Sunshine Challenge



**Comp: 05/26    Entry Window: 05/01 - 05/22**



**Comp: 06/30    Entry Window: 05/01 - 05/22**

# Walk the Wild Side (not on FL Homebrew Circuit)



Registration window: Mar 31, 2018 – June 08, 2018

Entries due by June 08, 2018

Judging Date: June 16, 2018



# Treasurer's Report

## Account Balances 3/21

<b>ASSETS</b>	
Cash and Bank Accounts	
Checking	1,805
PayPal Account	4,116
Cash Account	362
<b>TOTAL Cash and Bank Accounts</b>	6,283
<b>TOTAL ASSETS</b>	6,283
<b>LIABILITIES</b>	0.00
<b>OVERALL TOTAL</b>	6,283



\$76

## Cash Flow YTD

<b>TOTAL INFLOWS</b>	4,437
<b>TOTAL OUTFLOWS</b>	3,131
<b>OVERALL TOTAL</b>	1,306

**Paid Members: 43**

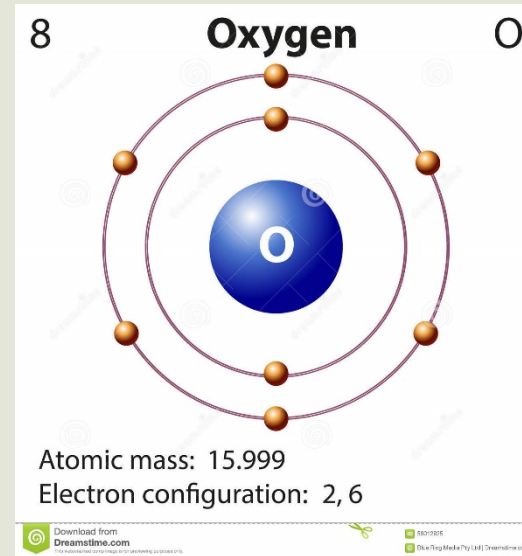
BJCP Tasting Exam is coming up



JUNE 2  
STUART, FL

3 spots available





# EDUCATION SESSION

**Oxygen and beer**

***Oxidization and beer, and best practices***

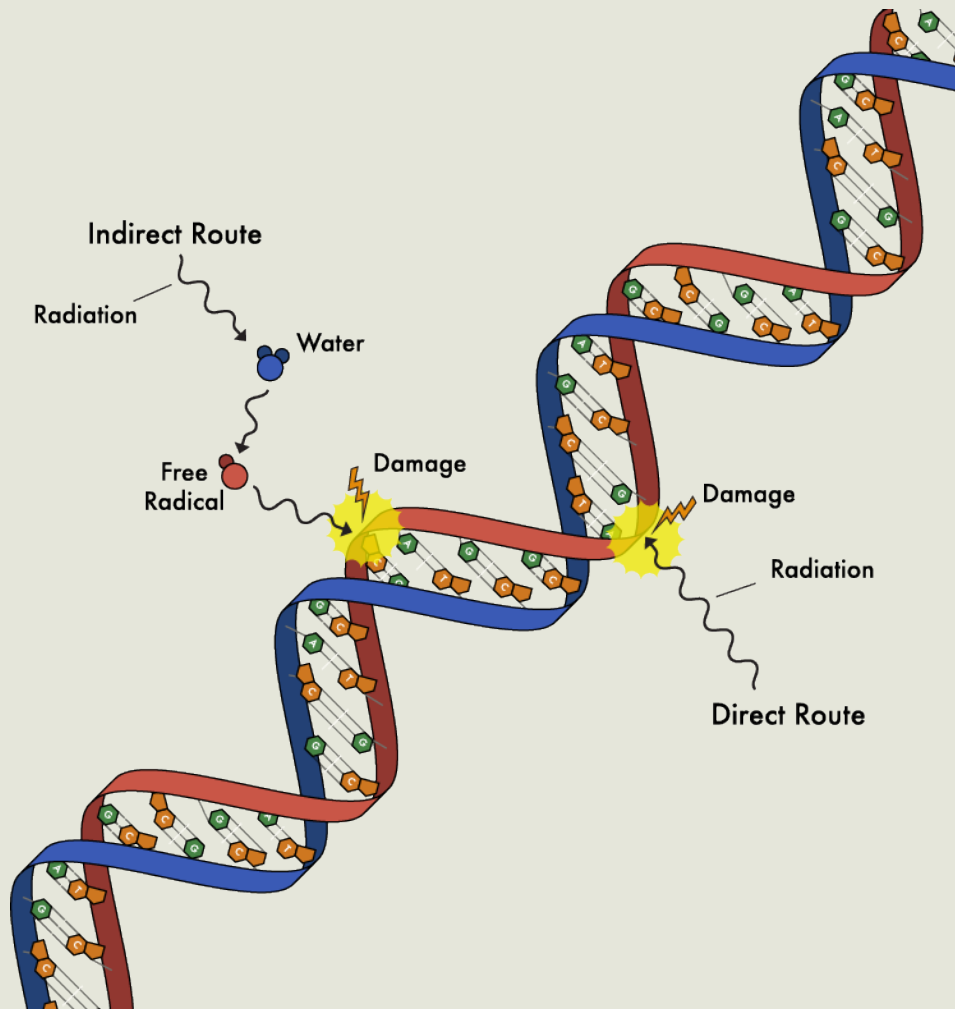
***Education session no. 3 of 3***

TRUE OR FALSE?

Oxygen can cause  
cancer in humans



TRUE! (but please don't hold your breath, it's a quicker death)



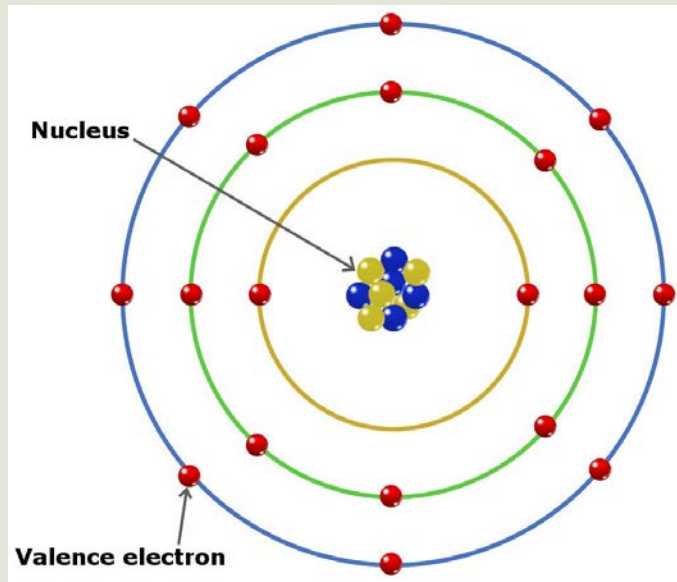
When radiation reaches DNA, it causes damage, but the DNA can repair itself.

In the presence of OXYGEN, it destroys the DNA in a way that cannot be easily repaired.

This is called the **Oxygen Enhancement Ratio**.

Source: <https://phys.org/news/2015-12-oxygen-cancer-treatment.html>

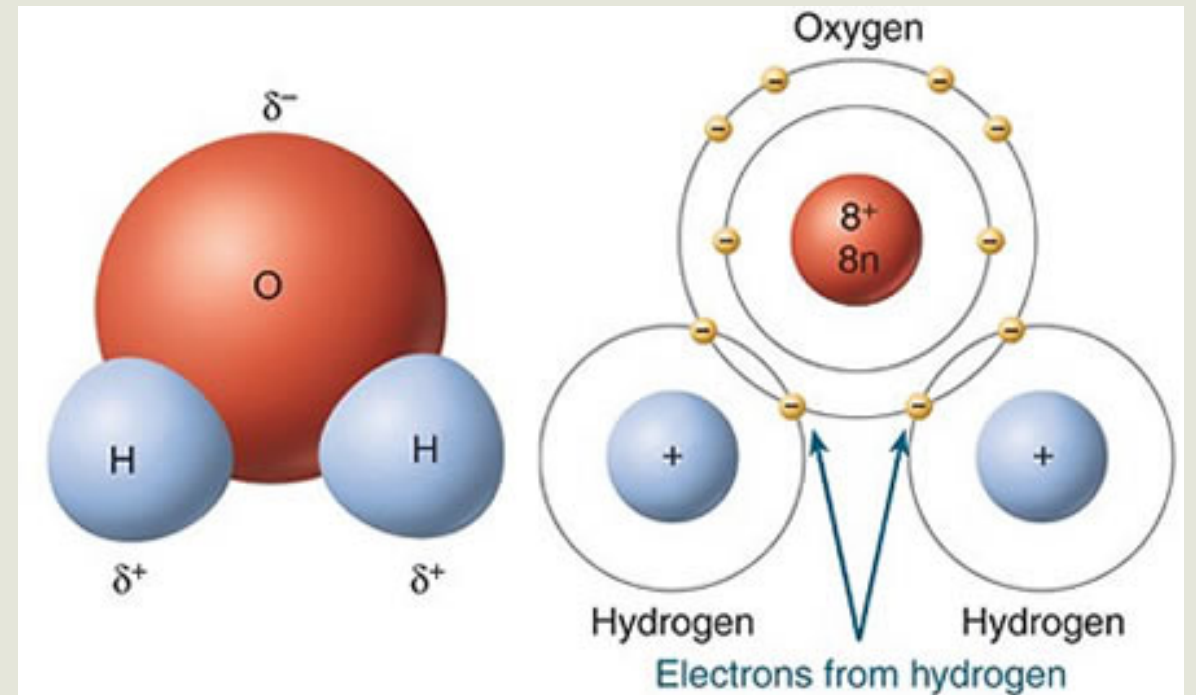
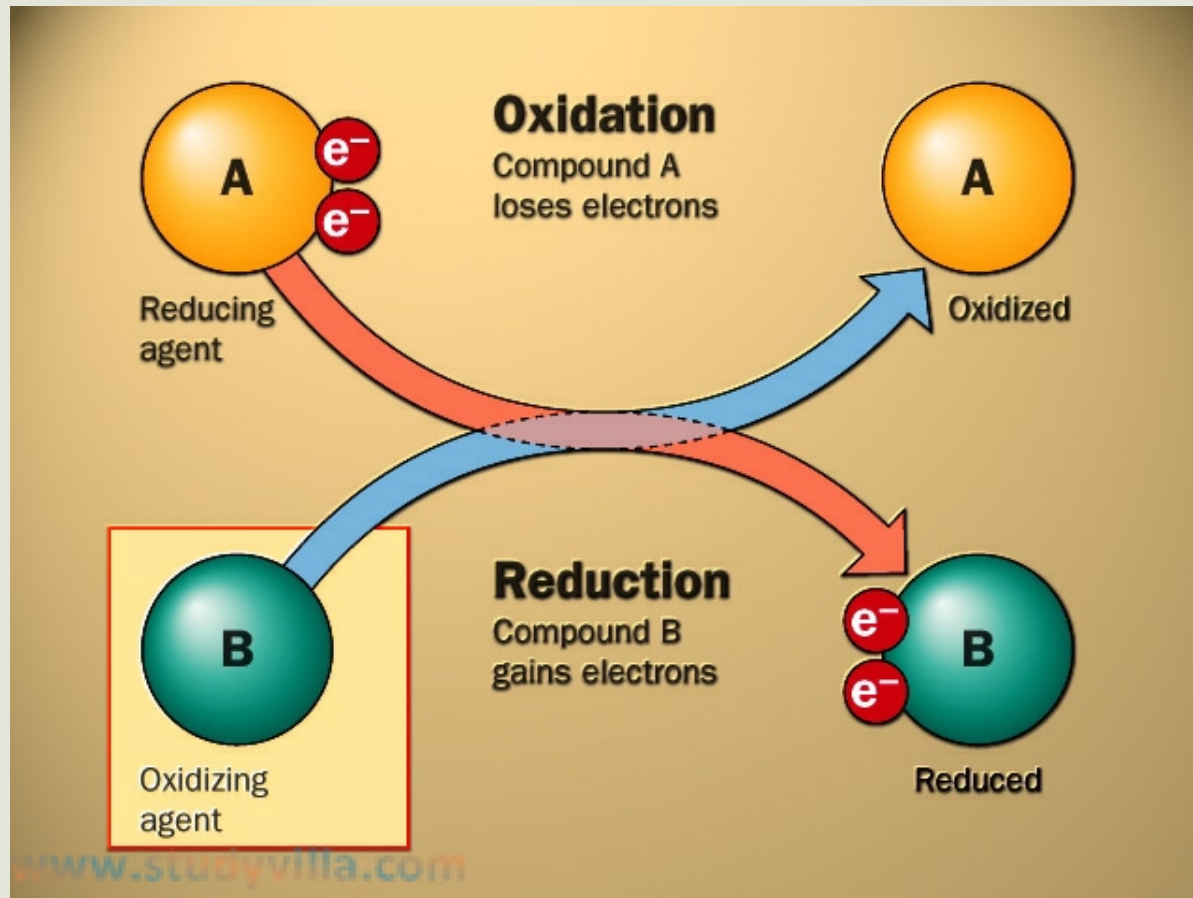
# A FLASH REFRESHER ON OXYGEN



Pauling Electronegativity Values																		He
H 2.1																	Ne	
Li 1.0	Be 1.6											B 2.0	C 2.5	N 3.0	O 3.5	F 4.0	Ar	
Na 0.9	Mg 1.3											Al 1.5	Si 1.9	P 2.2	S 2.6	Cl 3.0	Kr	
K 0.8	Ca 1.0	Sc 1.4	Ti 1.5	V 1.6	Cr 1.7	Mn 1.5	Fe 1.8	Co 1.9	Ni 1.9	Cu 1.9	Zn 1.6	Ga 1.8	Ge 2.0	As 2.2	Se 2.6	Br 2.8	Xe	
Rb 0.8	Sr 0.9	Y 1.2	Zr 1.3	Nb 1.6	Mo 2.2	Tc 1.9	Ru 2.2	Rh 2.3	Pd 2.2	Ag 1.9	Cd 1.7	In 1.8	Sn 2.0	Sb 2.1	Te 2.1	I 2.5		

Charles E. Sundin, University of Wisconsin-Platteville

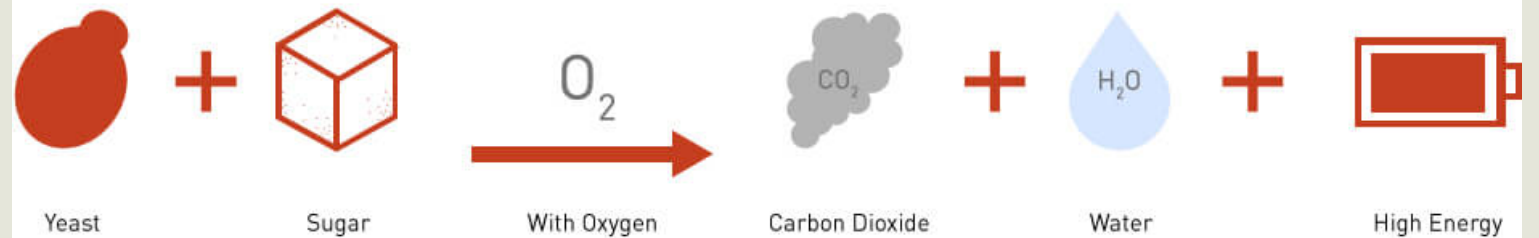
# A FLASH REFRESHER ON OXIDATION



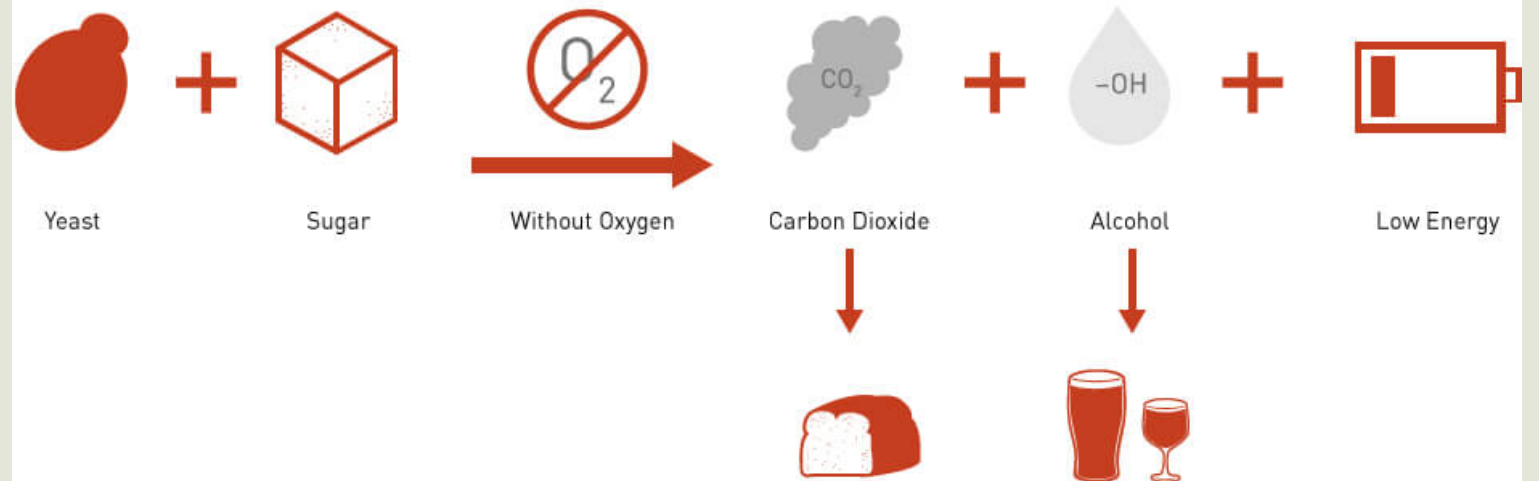


# A REFRESHER ON YEAST RESPIRATION AND FERMENTATION

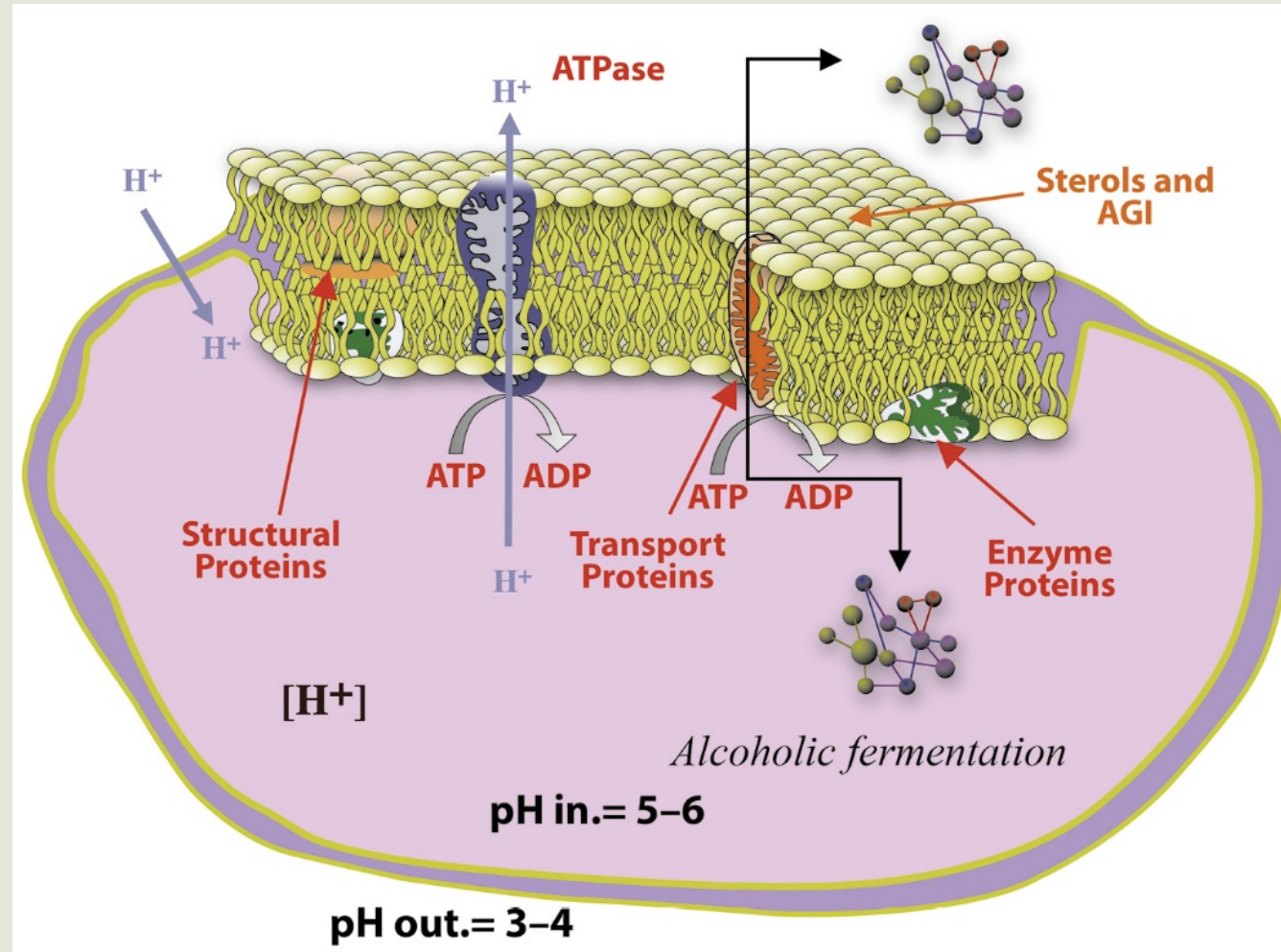
Respiration



Fermentation



# A REFRESHER ON HOW YEAST USES OXYGEN



## Beer and oxidation!



Why can beer taste musty or like cardboard, and how can we avoid it?

This is the takeaway!!

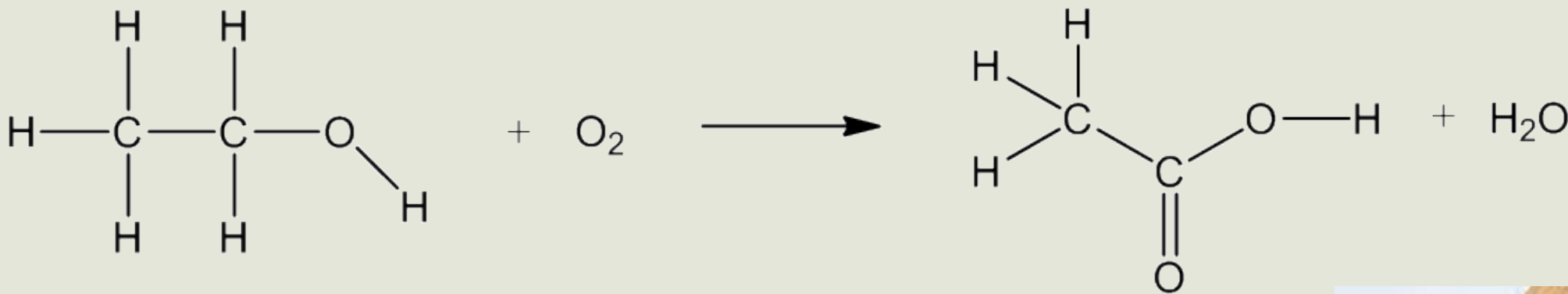


# Perception of oxidized flavors

**Table III: Flavors Associated with CSA and HSA**

CSA Flavors		HSA Flavors
Old or rotten apples (acetaldehyde)	Cheesy (hop acids)	Papery/cardboardy (staling aldehydes)
Sherrylike (low levels of acetic acid)	Hay/sagebrush/grassy (hop oils)	Leathery/woody (staling aldehydes)
Vinegary (w/ <i>Acetobacter</i> )	Soapy/goaty (fatty acids)	Sherrylike (low levels of acetic acid)

Example: Alcohol + O<sub>2</sub> = VINEGAR



↑  
Ethanol

↑  
Acetic  
acid

<http://www.chm.bris.ac.uk/motm/acetic-acid/acetic-acidh.htm>



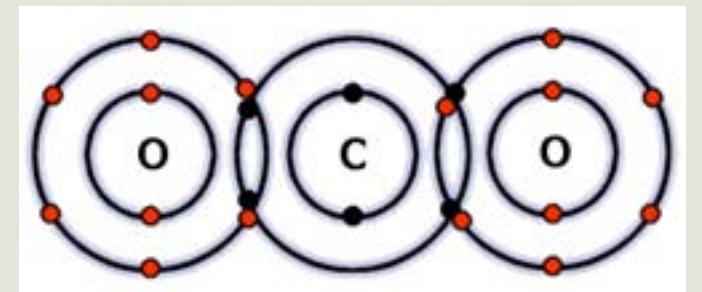


# The “classic” concerns. Or, COLD SIDE OXIDATION.

In the presence of alcohol and other aldehydes, oxygen creates undesirable flavors and aroma.

- Minimize disturbance to your carboy/bucket during fermentation
- Purge all vessels/kegs with CO<sub>2</sub>
- Avoid unnecessary splashing
- When bottling, purge bottle, and protect that headspace!

**WAIT! CO<sub>2</sub> has oxygen in it. WHY IS THAT SAFE????????**



## Headspace? Make space in your head for this!

**Table II: Effect of Thermal Abuse and Headspace Air on Staling**

Headspace air (mL per 1/3 L)	Days to Staling	
	Storage at 86 °F (30 °C)	Storage at 43 °F (6 °C)
0.5	60	120
1.0	40	100
1.5	20	80
2.0	5	70

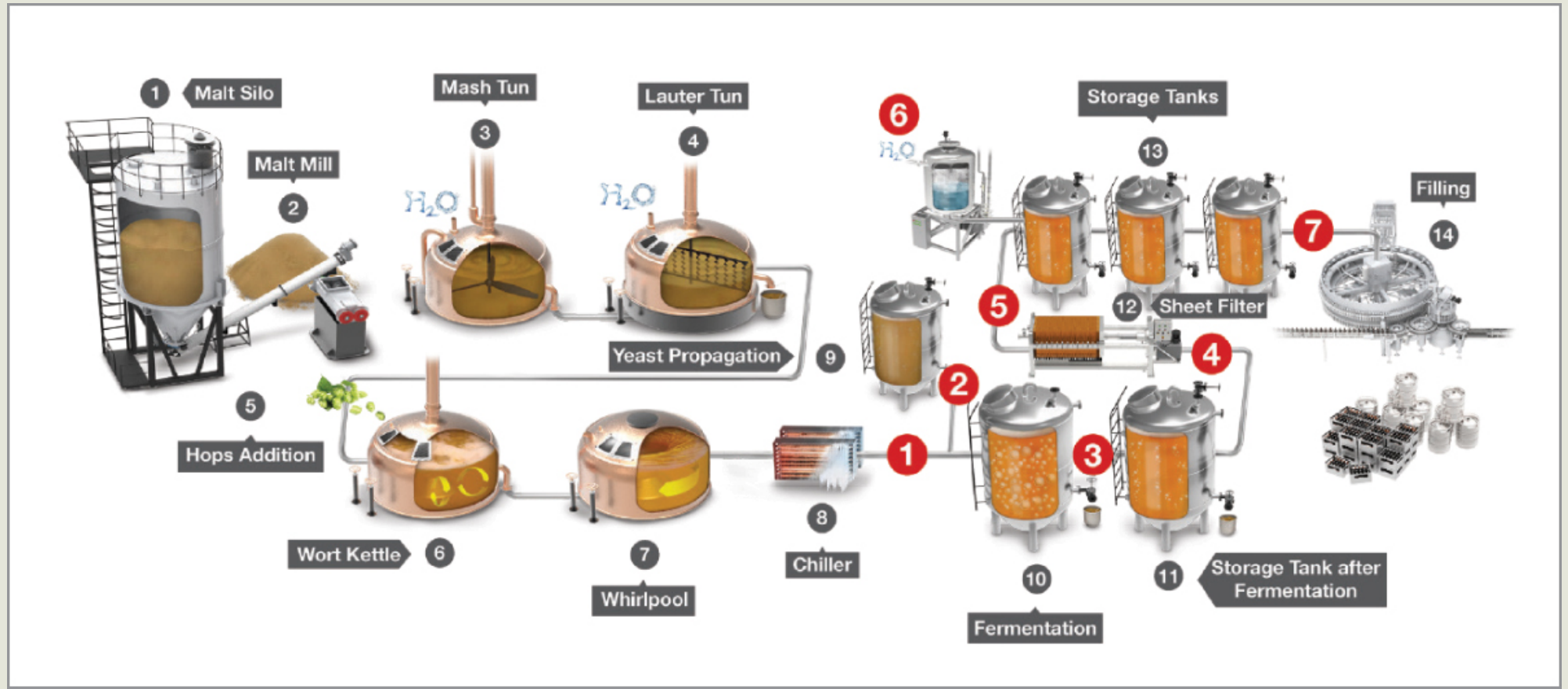
## The “new thinking.” Or, HOT SIDE AERATION.

- As soon as the malt is crushed, surface area exposed to air increases, and oxygen can begin to react with the your malt.
- Oxygen can combine with lipids, melanoidins, tannins, and other elements to produce undesirable compounds, which can stay in the wort through fermentation, ending up in the finished beer and promoting staling.
- In your MASH and wort, oxygen solubility decreases with temperature, but oxidation (and other chemical reactions) increase with temperature
- The phenols that are most responsible for giving strong aroma and flavor begin to oxidize (lose their electrons to oxygen in the atmosphere in chemical reactions)
- Avoiding oxygen pickup during your brew day is important too!



Oxidation can impact your beer during any part of the brewing process, so this is all about risk management

## FIND WHAT WORKS FOR YOU



A dark grey background featuring a collage of white line-art illustrations of school supplies. On the left, there is a globe showing continents. Above it are two circular protractors and a ruler. To the right of the globe are several books of varying sizes. On the far right, a microscope is depicted. Scattered throughout the background are various geometric shapes like triangles, rectangles, and circles, as well as other school-related items like a pencil and a compass.

# **MASH ANNOUNCEMENTS**

Floor is free



# BoTY Competition

American Porter and Stout (20A, 20B, 20C)

Looking ahead

May: Pale Bitter European Beer (5A, 5B, 5C, 5D)

June: SMaSH Beer (single malt, single hop)