

Chapter 8:
Troubleshooting

Sensory Evaluation

All wines leaving an Academy store should be evaluated to ensure they are up to standard after filtering.

- If the product does not meet standards, the wine should not be bottled!

Three steps to evaluating wine:

 Sight

 Smell

 Taste

Sensory Evaluation

Three steps to evaluating wine:

Sight


- Is it the right colour for the style?
- Oxidation?
- Watch your wine – there are some very obvious problems, but what may seem like a wine that's not clearing - turbidity or cloudiness could also be an indication of contamination.

Smell

- 80-90% of perceived taste is actually smell. The tongue only tells us salty, sweet, sour, bitter or umami

Sensory Evaluation

Three steps to evaluating wine:

 Taste (if all else fails)

- Sweet or dry (complete fermentation?)
- Effervescence / gassiness
- Tannin, Bitter, Acid, Mouthfeel, Weight

Fermentation is stuck/sluggish

Possible Causes & Cues	Corrective Actions (if any)
Fermentation temperature is too low or too high. 🔍 Check for any hints of hydrogen sulphide (H ² S)	Adjust temperature to recommended range. If there are any signs of H ² S, re-inoculate with fresh yeast.
Lack of oxygen available to the yeast.	Aerate must/wine by stirring or racking.
Cannot be determined.	Try inoculating with a rehydrated yeast starter (see instructions).
Lack of oxygen available to the yeast.	Aerate must/wine by stirring or racking.

Note: These tips should be used day 2-5. If the wine is still stuck after day 6, the fermentation is stuck and the wine should be discarded.

Filtering

Possible Causes & Cues

Filter pads are clogging; most common with reds or poorly clarified whites/reds.

- 👁️ Wine is cloudy or has a lot of suspended particles.
- 👁️ Pressure reading on pressure gauge, if filtration system is so equipped, has exceeded the recommended maximum operating pressure.

Corrective Actions (if any)

Allow the wine to completely clarify before filtering, and then rack to another carboy ensuring that sediments are not disturbed or racked.

Once completely clarified, first filter the wine using coarser pads followed by a second filtration using finer pads, e.g. Buon Vino #1 pads followed by #2 pads.

Wine is fizzy or carbonated

Possible Causes & Cues	Corrective Actions (if any)
<p>Incomplete alcoholic fermentation.</p> <p> Wine is cloudy.</p> <p> Prickly taste sensation</p>	<ul style="list-style-type: none">- <u>Never</u> bottle wine that is fizzy or carbonated.- Restart fermentation if stopped and let fermentation complete.
<p>Wine was not properly degassed; residual CO² gas still present in wine (where fermentation is complete).</p> <p> Wine is clear.</p> <p> Prickly taste sensation.</p>	<ul style="list-style-type: none">- Degas wine by racking, stirring or using a vacuum pump.

Wine referments in bottles

Possible Causes & Cues

Wine was not fermented to dryness or was not adequately stabilized prior to bottling and residual sugar is now fermenting.

- 👁️ Corks may start to push or pop out.
- 👁️ Bottles can start to shatter.

Corrective Actions (if any)

- Uncork all bottles into a carboy and let fermentation complete to the recommended SG.
- Stabilize and clarify once again before re-bottling. Ensure that the wine has completely fermented before adding fresh sulfite and potassium sorbate.

Wine colour is browning

Possible Causes & Cues

Wine has suffered from oxidation due to defective or poor use of winemaking equipment, excessive exposure to air during processing or storage, or insufficient or untimely addition of sulphite.

👁️ White wine is brownish.

👁️ Red wine has brownish rim.

🔍 Wine smells like Sherry (acetaldehyde).

Corrective Actions (if any)

- Excessive browning cannot be satisfactorily corrected.
- Review integrity of all winemaking equipment.
- Review all sulphite addition protocols.

Wine is not dry

Possible Causes & Cues

Incomplete alcoholic fermentation.

 Wine has perceptible sweetness (where style is meant to be dry)

Corrective Actions (if any)

- Don't bottle wine that is perceptibly sweet when the style is meant to be dry; it could start refermenting in bottles. If unsure, check rjscraftwinemaking.com for the sweetness code.
- Let fermentation run its course where possible; if not, discard and start a replacement batch

Wine smells vinegary/like acetone

Possible Causes & Cues

Acetobacter spoilage (early stage)

🔍 Wine smells like vinegar (acetic acid – a volatile acid).

Acetobacter spoilage (advanced stages)

🔍 Wine smells like Sherry (acetaldehyde) and/or nail-polish remover (acetone).

Corrective Actions (if any)

- Untreatable. Do not bottle.
- Review process and winemaking equipment.

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- Review process and winemaking equipment.

Wine has whitish film on surface

Possible Causes & Cues

Acetobacter spoilage (very advanced stages)

👁️ A whitish film (surface yeast) has formed on wine surface.

🔍 Wine smells like vinegar and/or nail-polish remover.

Corrective Actions (if any)

- Rack wine to a few inches just below wine surface. Careful not to disturb film. Best you can hope for is a wine with a vinegar and/or nail-polish remover smell. Discard.

- Review process and winemaking equipment.

Wine is cloudy (turbid)

Possible Causes & Cues

Incomplete or renewed fermentation.

👁️ Wine is not crystal clear, has a haze, or there are colloids still precipitating.

Improper racking, clarification or degassing.

👁️ Wine is not crystal clear, has a haze, or there are colloids still precipitating.

Corrective Actions (if any)

- Confirm by measuring the SG that fermentation is not complete.

- Let fermentation complete.

- Ensure that SG is as per instructions before trying to clarify wine. Let wine settle until clear and rack carefully, and degas thoroughly; fine/filter as required.

- If it is still not clearing, reattempt fining protocol. If the wine still does not clear discard and start a replacement batch

Wine is cloudy (turbid)

Possible Causes & Cues

Wine was subjected to high temperatures, i.e. wine, usually white, is not protein stable.

👁️ Wine is not crystal clear, has a haze, or there are colloids still precipitating.

High pectin content; usually in reds.

👁️ Wine is not crystal clear, has a haze, or there are colloids still precipitating.

Corrective Actions (if any)

- Treat with bentonite.

- Treat with pectic enzymes.

Wine is cloudy (turbid)

Possible Causes & Cues

Yeast or bacterial contamination.

👁️ Wine is not crystal clear, has a haze, or there are colloids still precipitating.

🔍 Wine has an off-aroma or off-flavour.

Corrective Actions (if any)

- Confirm that fermentation is complete.

- Add all the sulfite provided with the kit plus an additional 25%, and immediately filter wine down to fine grade.

- Do not add the sorbate (if the problem is due to lactic acid bacteria, sorbate will cause an off-putting smell of geraniums).

Wine smells of sulphur compounds

Possible Causes & Cues

Overuse of sulphite.

🔍 Wine smells like a burnt match; sulphur dioxide (SO_2).

Wine was in contact with gross lees for too long or yeast was overly stressed during fermentation from, for example, low/high temperatures.

🔍 Wine smells like rotten eggs; hydrogen sulphide (H_2S).

🔍 Wine smells like onions/garlic; mercaptans (thiols).

🔍 Wine smells like cooked cabbage; dimethyl sulphide (DMS).

Corrective Actions (if any)

- Aerate must/wine by stirring/racking to dissipate (bind) SO_2 .

- Review all sulphite addition protocols.

- For mild cases (burnt match smell), try a very light aeration by racking.

- For more serious problems, discard and replace.

- Review winemaking process.

Wine throws tartrate crystals in bottles

Possible Causes & Cues

Wine was subjected to very cold temperatures and it is not cold stable.

- 👁 Colourless to yellowish (white wines) or reddish (in red wines) tartrate crystals that look like tiny shards of glass. Found as precipitate or on cork surface.

Corrective Actions (if any)

To minimize issue, consider cold stabilization.

- The wine is totally safe and can be drunk by carefully pouring it into a glass leaving crystals behind; there are no health concerns.
- Review logs to ensure that metatartaric acid was added if supplied with kit.
- NOTE: Metatartaric acid will hold up approx. one year – best for early drinking wines.
- Instruct customer not to store wine below cellar temperature 13°C (55°F).

Wine smells moldy/musty

Possible Causes & Cues

Mold interaction with chlorine; produces TCA (2,4,6-trichloroanisole) in what is best known as corked wine.

 Wine smells musty, like wet newspaper.

Corrective Actions (if any)

- Untreatable. Discard wine.
- Review cleaning and sanitation process.
- Eliminate chlorine-based products (at least from winemaking area). TCA contaminates the entire area and can prove impossible to eradicate.

Wine smells “funny”

Possible Causes & Cues

Brettanomyces yeast infection from unsanitary conditions.

🔍 Wine smells of barnyard.

Corrective Actions (if any)

- Untreatable.
- If wine was stored in oak barrels, check barrels and discard if infected.
- Review winemaking equipment and process to try and identify source of infection.

Wine smells “funny”

Possible Causes & Cues

Wine was stored in glass/PET carboy in direct UV light (known as light-strike reaction).

🔍 Wine smells of asparagus or corn chips.

Corrective Actions (if any)

- Untreatable.
- Store wine away from light sources. Tinted glass is always preferred.

Corks are pushing out of bottles

Possible Causes & Cues

Storage temperature too high.

- 👁️ Corks are bulging out of bottles and from under capsules.
- 👁️ Will also cause wine in carboys to expand and spill into airlocks.

Corrective Actions (if any)

- Lower temperature to, ideally, 13°C.
- Taste test one bottle to determine if wine has been damaged (oxidized).

Remember...

As a RJS Craft Winemaking Academy store, you represent a network of the finest craft winemaking retailers. If you are not confident in the product you have made, please remake the product to ensure customer satisfaction!