BC Guild of Wine Judges - Common Faults – Revision 3

It is the perceived degree of the Fault (Minor or Major) that affects the quality of the wine. At low levels some "faults" such as Brett, Vinegar, Pyrazine, and Diacetyl may actually contribute to the complexity of the wine and be a positive attribute. At higher levels they begin to negatively affect the quality of the wine and become a fault. A Minor Fault (negative levels) will take a wine out of medal potential but it will likely still be a Satisfactory or Poor wine, while a Major Fault (obnoxious levels) will likely put the wine into the Barely Drinkable or Undrinkable wine categories. The following table is a summary of common wine faults, but it does not contain all of the faults found in wine. Almost all of the faults listed below may be removed/reduced using a highly specialized cross flow, reverse osmosis processes and specialized membranes, which is only offered to commercial wineries.

FAULT	DESCRIPTION/SYMPTOMS	CAUSE	PREVENTION/TREATMENT
Sulphur Compounds			
a) Hydrogen Sulphide (H2S)	Pungent rotten egg, or garlic aromas/flavors.	Usually produced by yeast in the must that became stressed due to lack of yeast nutrient (nitrogen). It can also occur from wine being left on the lees. Copper stir stick will reduce the aromas and confirm the presence of H2S.	Can be prevented by ensuring that the must has adequate levels of yeast nutrient such as Go-Ferm, Fermaid, and Diammonium Phosphate. When detected, aerate and rack wine over a copper scrub pad.
b) Mercaptans	Skunk, rubber, burnt rubber, and onion aromas/flavors.	Formed after fermentation by yeast acting on sulphur in the lees or from H2S. Copper stir stick will confirm presence of H2S.	See Hydrogen Sulphide above.
c) Disulphides	Cooked cabbage, canned corn, asparagus, truffles aromas/flavors	Usually results from conversion of Mercaptans over time.	No known treatment other than commercial reverse osmosis.
Cork Taint Trichloroanisole 2-4-6 (TCA)	Musty, moldy, wet cardboard, damp basement or damp cloth aromas and flavors. Fruit aromas and flavors will be suppressed.	TCA is produced by a mold that reacts with chlorine and chlorophenols. TCA can be present in corks, barrels, wine, grapes, soil, rubber hoses, and pressure treated wood. TCA is easily transmitted throughout the cellar by winemaking equipment.	Prevention is paramount. Do not use any chorine based cleaning products. If barrels are contaminated they must be destroyed. Pouring the wine into a bowl with a sheet of polyethylene plastic wrap may remove TCA after a few minutes.
Oxidation	Bruised apple, raison, and sherry like aromas. Fruit aromas and flavors will be suppressed. Bitterness in finish may be detected.	Too much contact with air due to barrels or carboys not completely full and/or insufficient levels of sulphite (SO2) in the wine.	Can be prevented by ensuring barrels and carboys are topped up and proper levels of sulphite (SO2) are maintained. Treatment for mild cases can be done by fining with Polyclar (PVPP) or re-fermentation with fresh grapes or juice to fix Major Oxidation.
Mycoderma	Aromas of oxidation with a definite mustiness added. Also a trace of vinegar (acetic acid) may be present. In the carboy/barrel there will be a white film on the wine.	Mycoderma is a white surface film, yeast like organism also known as Flowers of Wine. It is generally caused by not keeping containers full and not maintaining proper SO2 levels. It requires oxygen to grow and can contribute to increased levels of acetic acid in wine.	Prevention is by keeping containers always full. Maintain SO2 levels at 30-50 ppm at all times. Treatment in mid cases is by skimming the film off. Then rack and sterile filter if possible and treat with 50-100 ppm SO2.
Acetaldehyde	At low levels it can contribute pleasant fruity aromas to wine. At high levels it will produce oxidative straw like, sherry, sour, metallic, and apple aromas and flavors. In Sherry this is desired & acceptable, but in other wines it is not.	Acetaldehyde occurs naturally in the fermentation process of wine and can be a positive at low levels. Increased amounts of Acetaldehyde can be cause by increased fermentation temperatures or by various surface film yeasts that grow in the presence of oxygen.	Prevention is by controlling fermentation temperatures, maintaining appropriate SO2 levels, and keeping storage containers full. Treatment is to remove surface film, then rack and sterile filter if possible and add 50-100 ppm SO2. No known treatment other than commercial reverse osmosis

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Brettanomyces (Dekerra)	Aromas and flavors of barnyard, horse, sweat, raw meat, and bandaids. At low levels it can add complexity and is common in Burgundy and Rhone wines and is considered a positive. At higher levels it will over power the fruit flavors and is considered to be a negative	Brettanomyces is a yeast that can occur in wine before or after it is bottled. It can enter the wine through contaminated grapes, wine making equipment, or barrels.	Prevention is by proper cleaning of wine making equipment and by maintaining proper SO2 levels. The only easy option would be to dilute the effect through blending, but SO2 levels need to be maintained to prevent it from increasing. No known treatment other than commercial reverse osmosis
Diacetyl	Buttery and sometimes nutty, caramel aromas and flavors. At lower levels it can add complexity to wines like Chardonnay and is considered a positive. At higher levels it will over power the fruit flavors and is a negative.	Malolactic bacteria converts malic acid to lactic acid and diacetyl can be a byproduct of this conversion. The presence of citric acid in the wine can increase the amount of diacetyl that is produced.	Prevention would be to keep SO2 levels high enough so that a malolactic culture cannot start. It may be possible to dilute amount of diacetyl through blending, but SO2 levels need to be maintained to prevent the ML process from restarting. No known treatment other than commercial reverse osmosis
Pyrazine	Pyrazine is characterized by herbaceous, green bean, and green pepper aromas and flavors. At lower levels it can add complexity to wines but at higher levels it is considered to be a negative attribute.	Pyrazines are aroma compounds that typically occur in Cabernet Sauvignon and Sauvignon Blanc especially if the grapes are grown in cooler climates and do not ripen properly.	Prevention is by minimizing the amount of stems in the must and also by removing the seeds. Certain strains of yeast will also reduce the amount of pyrazine. Pyrazines may be masked by blending and oak additions. No known treatment other than commercial reverse osmosis
Geranium Aromas	Unmistakable medium to strong aromas of green geranium leaves.	Results when potassium sorbate is added to stabilize an off dry wine, after it has undergone malolactic fermentation (ML).	Do not add potassium sorbate to a wine if you suspect that it has undergone a ML fermentation. No known treatment other than commercial reverse osmosis
Excess Sulphur Dioxide (SO2)	Aromas of faint to intense smell of burnt matches and a soapy mouthfeel and finish. A burning prickling sensation in your nose when smelling the wine.	Excess additions of SO2 during the winemaking process.	Treatment can be done by aerating the wine but care must be taken not to overdue this or there can be a small risk of oxidizing the wine.
Vinegar (Acetic Acid)	In very small amounts this can be considered to be a positive. However, once it becomes obvious in the aroma and flavor it is a negative.	Vinegar is a common occurrence in wine as a result of the fermentation process and is caused by acetobacter bacteria and by the fermentation yeasts. Acetobacter bacteria requires oxygen to survive. Sulphite (SO2) is toxic to the acetobacter bacteria.	To prevent vinegar, keep your storage containers full and your SO2 levels at the proper level. In mild cases the affected wine can be blended with unaffected wine to reduce the perception. No known treatment other than commercial reverse osmosis
Volatile Acidity (Ethyl Acetate)	In very small amounts this can add richness and sweetness and is considered to be a positive. In higher levels it smells like nail polish remover and is a negative.	Ethyl acetate forms from the reaction of ethanol (alcohol) and acetic acid (vinegar) in musts that have high PH, high temperatures and low sulphite (SO2). It requires oxygen to form.	See vinegar (acetic acid) above.