

VINIFICATION, BOTTLING AND TESTING GUIDE



Sampling Guide

To guide you during sampling for all your tests, we suggest carefully labelling your samples and filling out our Analytical Request Form available on our website (oenoscience.com) This will ensure quick processing of your request. The following steps provides guidance for efficient sampling.

SAMPLING – MATURITY MONITORING

- Harvest at least the equivalent of 200 to 400 grains taken at random from several rows if possible spotted each year.
- Store whole berries in a closed container, in a cool place but not in the refrigerator.
- Carefully crush the grapes about 1 hour before the scheduled appointment. Sift the juice through a strainer. If you are sending samples directly to the laboratory, transfer the sifted / filtered juice to the sample bottles provided.
 - **Collect 250 ml of juice**
 - Identify bottles with the labels provided and carefully note:
 - Your name or your company name
 - Grape varieties
 - Stopper the bottle
- Fill out the analytical request form.

SAMPLING DURING VINIFICATION

Gentle reminder when sampling: (When scheduling an onsite visit with your oenologist, please prepare samples prior to his or her arrival to allow proper settling and warming of samples).

- Drain the taps thoroughly prior sampling or carrying out any measurements.
- Note the specific gravity and temperature on vinification records.
- Rinse bottles at least twice with the sample prior sampling.

VINIFICATION MONITORING (turnaround time: 24-48 hrs)

- Collect 250 ml
- Identify sampling bottles with labels provides and carefully note:
 - Your name or your company name
 - The Tank number and its volume
 - Grape varieties
- Stopper the bottle at the very last-minute prior sending it to the laboratory (in case fermentation has started)
- Fill out the analytical request form.



SAMPLING DURING AGING AND PRIOR TO BOTTLING

Gentle reminder for taking samples:

- Clean the chimneys, valves, and taps of the tanks carefully and regularly.
- Drain the taps thoroughly prior sampling and pre-rinse bottles at least twice prior taking a sample.
- Stopper the bottles and carefully identify samples with:
 - Your name or your company name. Note Tank number and volume
 - Fill out the analytical request form.

ROUTINE TESTING (turnaround time: 2 to 3 business days)

- **Collect 250 ml**
- In addition to indications above, record:
 - Grape varieties, wine type, vintage.
 - The wine's original location if it was moved since the last analysis.
 - If the tank was partially emptied.
 - Fill out the analytical request form.

PRE-BOTTLING ANALYSIS (turnaround time: 2 to 3 business days)

- **Collect 250 ml**
- In addition to indications above, record:
 - Grape varieties, wine type, vintage.
 - The wine's original location if it was moved since the last analysis.
 - If the tank was partially emptied.
 - Fill out the analytical request form.



REGULATION AND COMPLIANCE TESTING

PGI (Protected Geographical Indication testing) (turnaround time: 2 to 3 business days)

RACJ (Régie des alcools, des courses et des jeux) testing (turnaround time: 7 business days)

Contest testing (turnaround time: 5 to 7 business days)

- **Collect 750 ml** (or use conditioned sample)
- Properly identify samples by noting:
 - Your name or your company name.
 - Tank number and grape variety, lot number for conditioned samples (RACJ testing).
 - Fill out the analytical request form.

NON-ROUTINE TESTING

(Blending, Fining or any non-routine testing) (turnaround time: 4 business days)

- **Collect 750 ml.** Pre-rinse sampling bottles with the sample to be tested.
- Identify samples accordingly and fill out the analytical request form.

AIDE MÉMOIRE – WHAT TO DO AND WHEN

	STEPS	WHEN ?	WHY ?	RECOMMENDED TESTS*	CODE	REQUIRED VOLUME
HARVEST	Maturity Monitoring	2 weeks before harvest	Monitor and assess fruit maturity. Good for deciding when to harvest	°Brix, GF, Potential alcohol, TA, pH, Density	CM	250 ml of juice
	Harvest	When collecting the must: After filling settling tank for whites and rosés and. At the end of the vat for reds.	To ensure a good alcoholic fermentation: Important to address nitrogen deficiency and determine potential corrections (chaptalisation, deacidification...)	°Brix , GF, Potential alcohol, % alcohol, TA, pH, TAR, MAL, Density, Potassium, Total Nitrogen, Ammonia et α-Amino Nitrogen.	MOÛTS	250 ml of juice
VINIFICATIONS	Alcoholic Fermentation	During and after Alcoholic Fermentation	To monitor alcoholic fermentation	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, α-Amino Nitrogen.	ACV	250 ml
	End of Alcoholic Fermentation, Racking, Run-off-Devatting	After Alcoholic Fermentation, before adding sulfites	To confirm the end of alcoholic fermentation and obtain the first analytical report.	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, FSO ₂ , TSO ₂	FIN FA	250 ml
	Malolactic Fermentation	During Malolactic Fermentation	To monitor the end of malolactic fermentation.	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC	CT-MALO	250 ml

	STEPS	WHEN ?	WHY ?	RECOMMENDED TESTS*	CODE	REQUIRED VOLUME
MONITORING	End of fermentations Racking	At the end of fermentations, after adding sulfites.	To ensure that the young wine or cider is well protected from oxydation.	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, FSO ₂ , TSO ₂	VEND	250 ml
	Aging or Monthly check	To be done regularly during aging (every month)	Regular testing for monitoring wine or cider protection.	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, FSO ₂ , TSO ₂	AC	250 ml
STABILISATIONS	Blending Fining	Minimum of 1 to 2 months prior bottling.	To obtain an analytical report to assess the best clarification and stabilisation methods.	Fining trials, turbidity, heat and cold stability testing after fining to avoid precipitation and haze.	AC + COLL + STA PRO + STA TAR	2 X 750 ml
	Stabilisation	Minimum 2 weeks prior bottling	To assess the efficiency of fining trials and stabilisation operations.	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, FSO ₂ , TSO ₂ , Iron, Copper, heat and cold stability testing after fining.	AC + STA TAR + STA PRO	750 ml
CONDITIONNING	Pre-bottling	10 days to 2 weeks prior bottling	To obtain an analytical report to assess and adjust SO ₂ if necessary	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, FSO ₂ , TSO ₂ , Iron, Copper, heat and cold stability testing after fining.	PRÉ-MISE	750 ml
	Final Pre-bottling check	2 days prior bottling	To obtain a final analytical report and verify SO ₂	% Alcohol, Density, GF, pH, TA, VA, TAR, MAL, LAC, FSO ₂ , TSO ₂ , Iron, Copper, heat and cold stability testing after fining.	MISE	750 ml
	Post-bottling	After bottling	To assess product stability and lot homogeneity after bottling.	FSO ₂ , TSO ₂ , Microbiology, sensory evaluation, heat and cold stability.	POST MISE	Bottled sample

***Legend :** GF : glucose-fructose, TA : Total Acidity, VA : Volatile Acidity, TAR : Tartaric Acid, MAL : L-Malic Acid, LAC : L-Lactic. FSO₂: Free SO₂, TSO₂ : Total SO₂, STA TAR : cold stability, STA PRO: heat stability, MICRO: microbiology.

PREPARATION GUIDE TO BOTTLING

Steps	Details	Delay	Comments
1	Schedule a meeting with your oenologist to perform blending trials.	J-75 to J-60	<i>Neither too early nor too late.</i>
2	Blending of tanks following trial results.	J-59	
3	Bring a 750 ml sample to the lab for each blend to perform fining trials .	J-55	<i>Carefully purge faucets and collect a representative sample.</i>
4	a) Fining trial results receipt b) Ordering of fining agents c) Ordering of reagents required for bottling operations. d) Verification of % Alcohol for labeling.	J-52 to J-50	<i>Carefully assess all information from fining trials (fining agent, racking, sulfite addition, aeration, contact time). Each detail is important.</i>
5	Perform fining as directed by your oenologist.	J-50 to J-45	<i>Carefully read product technical sheets and directions.</i>
6	Set a filtration date and establish a bottling calendar with your service provider.	J-40 to J-30	<i>Because of the few numbers of bottling service providers, their agenda is often very busy.</i>
7	Heat and cold stabilities recheck	J-40 to J-30	<i>Not indispensable but strongly advised in cellars often experiencing instabilities</i>
8	Perform racking of fined wines.	J-30 to J-25	<i>Think to inert or aerate if needed.</i>
19	Cold stabilisation	J-25	<i>Cold treatment, electro dialysis or adding of stabilisation agents.</i>
10	Wine prefiltration	J-30 to J-25	<i>Preferable a few days before bottling. Non necessary if performed to early.</i>
11	Reception of reagents required for bottling operations.	J-30 to J-20	
12	Send a 750 ml sample to the lab for each tank to perform a pre-bottling test and an IGP test if required.	J-15	<i>Carefully purge faucets and collect a representative sample. Ensure the sample is well stoppered. Inform the lab if the product will be sweetened.</i>
13	Receipt of pre-bottling results	J-13 to J-10	<i>Ensure sufficient time window for the laboratory to perform testing.</i>
14	Pre-bottling filtration.	J-10 to J-5	<i>Prefiltration will prevent problems during final filtration.</i>
15	Adjust SO ₂ /CO ₂ if necessary	J-4 to J-2	<i>Carefully follow instructions.</i>
16	Re-control and re-adjust SO₂/CO₂ if necessary	J-2	<i>For the conscientious, for important adjustments and for sweetened wines!</i>
17	MONITOR BOTTLING	J	<i>Dissolved CO₂, product tasting, pallet ranking</i>
18	Send a bottled sample to the lab for a post-bottling test and certified tests (RACJ, IGP) if necessary.	J+1 to J+10	<i>Quebec permit holders must provide a certified testing certificate for each lot produced to the RACJ.</i>
19	Marketing	J+10 to J+30	<i>Assess the product after bottling.</i>

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