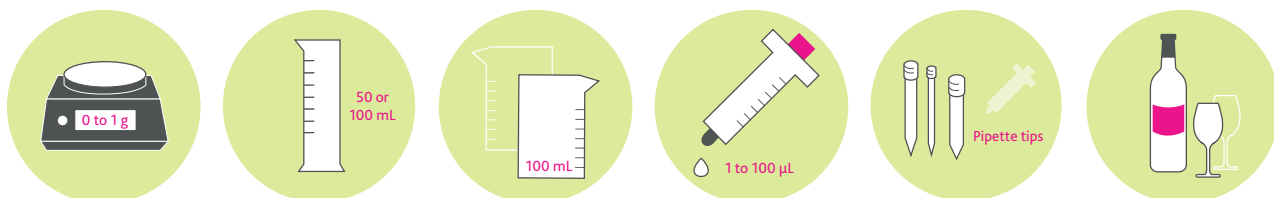


## BENCH TRIALS

Bench trials are an essential step in determining dosage rates for treatments during wine aging. With fining treatments, you want to add just enough product to remove the unwanted character, but not over-fine the wine and remove aromatics or desired texture. With tannin and mannoprotein treatments, each wine has a “sweet spot” where the mouthfeel comes into balance and this can only be found through bench trialing different dose rates.

The team at LAFFORT® wants to make the bench trial process as painless as possible. With the correct tools, bench trials can be quick and easy.

### TOOLS



## TIPS

### 1 - For powder or granulate products:

Prepare a 5% solution 2 hours ahead (exception with ICHTYOCOLLE™ – prepare a 1% solution).

### 2 - For liquid products:

Use product directly (no dilution necessary).

### 3 - Make a plan:

Write down your dosage rates and calculate the volume of bench trial solution needed for each sample.

### 4 - Organize the workspace:

Label all wine sample bottles/glasses before adding the bench trial solution.

### 5 - Homogenize bench trial solutions

right before pipetting into wine sample.

### 6 - Mix wine samples thoroughly after addition.

**7 - Fining agents** require 2 – 4 days of settling. Look for compact lees layer at bottom of sample bottle, then decant clean wine for sensory analysis.

### 8 - Structure building tannins:

TANIN VR GRAPE™, TAN’COR GRAND CRU™, TAN’FRESH™, TANIN GALALCOOL SP™ are best evaluated after 48 hours of contact time with the wine.

### 9 - Finishing products:

QUERTANIN™ range, AUTOLEES™, MANNOFEEL™, and STABIVIN SP™ can be added and tasted immediately after mixing into wine sample.

## LAFFORT® CONVERSION CHART

ppm or mg/L	100	200	300	400	500	600	700	800	900	1000
g/hL	10	20	30	40	50	60	70	80	90	100
lbs/1,000 gal	0.8	1.7	2.5	3.3	4.2	5.0	5.8	6.7	7.5	8.3

mL/hL	1	5	10	20	30	40	50	100	200	300
mL/1000 gal	38	189	379	757	1,136	1,514	1,893	3,785	7,570	11,355
mL/gal	0.04	0.19	0.38	0.76	1.14	1.51	1.89	3.79	7.57	11.36

1 gal = 3.785 L	12 x 750 mL case = 2.37753 gal
1L = 1000 mL	1 barrel = 225 L = 59 gal
1hL = 100L = 26.40 gal	1 ton = 165 gal approx
1 lbs = 454 grams	1g/L = 0.1%
1 US ton = 2000lbs = 907 kg	1 metric ton = 1000 kg = 2205 lbs



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## LAFFORT® BENCH TRIAL DOSAGE - GRANULATES

Soluble products, such as the QUERTANIN™ range and AUTOLEES™, can use this table for direct addition and tasting immediately afterwards.

Fining treatments need time to settle before evaluating. In general, 2 - 4 days is the recommended settling time. Look for a compact lees layer at the bottom of the sample bottle, then decant clean for sensory evaluation.

Dosage	Volume of Wine Sample			
	50 mL	100 mL	250 mL	375 mL
10 ppm	10 µL	20 µL	50 µL	75 µL
20 ppm	20 µL	40 µL	100 µL	150 µL
30 ppm	30 µL	60 µL	150 µL	225 µL
40 ppm	40 µL	80 µL	200 µL	300 µL
50 ppm	50 µL	100 µL	250 µL	375 µL
60 ppm	60 µL	120 µL	300 µL	450 µL
70 ppm	70 µL <sup>1</sup>	40 µL	350 µL	525 µL
80 ppm	80 µL	160 µL	400 µL	600 µL
90 ppm	90 µL	180 µL	450 µL	675 µL
100 ppm	100 µL	200 µL	500 µL	750 µL
125 ppm	125 µL	250 µL	625 µL	938 µL
150 ppm	150 µL	300 µL	750 µL	1125 µL
200 ppm	200 µL	400 µL	1000 µL	1500 µL

\*µ L= microliters.

### For powder or granulate products.

Prepare a 5% solution, e.g. 2.50 grams dissolved in 50 mL water. Mix thoroughly and allow solution to swell for two hours before use.

Using the table at left, add the indicated number of microliters of the solution to the trial sample to achieve the specified ppm.

Exception – for ICHTYOCOLLE™, prepare a 1% solution and multiply the volume indicated by 5.

Tannin and Autolees samples can be dissolved in a 12% alcohol solution instead of water when making the 5% bench trial solution.

## LAFFORT® BENCH TRIAL DOSAGE - LIQUIDS

Liquid products, such as STABIVIN™ SP, can use this table for direct addition and tasting immediately afterwards.

Fining treatments, such as gelatins, need time to settle before evaluating. In general, 2 - 4 days is the recommended settling time. Look for a compact lees layer at the bottom of the sample bottle, then decant clean for sensory evaluation.

Dosage	Volume of Wine Sample			
	50 mL	100 mL	250 mL	375 mL
10 mL/hL5	µL <sup>1</sup>	0 µL	25 µL	38 µL
20 mL/hL1	0 µL	20 µL	50 µL	75 µL
30 mL/hL1	5 µL	30 µL	75 µL	113 µL
40 mL/hL	20 µL	40 µL	100 µL	150 µL
50 mL/hL	25 µL	50 µL	125 µL	188 µL
60 mL/hL	30 µL	60 µL	150 µL	225 µL
70 mL/hL	35 µL	70 µL <sup>1</sup>	75 µL	263 µL
80 mL/hL	40 µL	80 µL	200 µL	300 µL
90 mL/hL	45 µL	90 µL	225 µL	338 µL
100 mL/hL	50 µL	100 µL	250 µL	375 µL
125 mL/hL	63 µL	125 µL	313 µL	469 µL
150 mL/hL	75 µL	150 µL	375 µL	563 µL
200 mL/hL1	00 µL	200 µL	500 µL	750 µL

\*µ L= microliters.

### For liquid products.

Use directly.

Using the table at left, add the indicated number of microliters to the trial sample to achieve the specified dose rate in mL/hL.



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